



# **PROVIDER USER'S MANAGEMENT PROGRAM (PUMP) GUIDE**

**To accompany ECHO version 9.0  
October 2006**

## Revision History

Date	Version	Description	Author
10/18/06	9.0	Added 9.0 features	M Rabi
3/9/2006	8.0	Updated Group generation section	M Rabi
11/14/2005	8.0	Add new ECHO 8.0 features	M Rabi
6/22/05	7.0	Added new provider registration screenshot	M Rabi
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6/21/05	6.0	Updated provider registration screenshot	M Rabi
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## **1 OVERVIEW**

PUMP (Provider User Management Program) is a User Interface (UI) tool that enables Earth Observing System (EOS) Clearing House (ECHO) data providers/partners to manage their ECHO metadata. This document provides basic information on the use of the PUMP User Interface. It describes what PUMP is, where to get it, and how to use it.

### **1.1 Background (How PUMP relates to ECHO)**

ECHO is an enabling framework that allows different data systems and services to work together. ECHO helps data providers make their Earth science resources available to the science community. An ECHO data provider is an entity that participates with ECHO to provide Earth science data in the form of its metadata holdings. This metadata is available for search and order. However, providers have control over who can search and order their data.

There are two types of users in ECHO: guest and registered users. A registered user is a person who has registered with ECHO by providing basic contact information. Registered users can be given the provider role, which gives them privileges to act on behalf of a data provider to manage their metadata. The provider role can be given to a registered user by ECHO Ops or by another registered user with the provider role. PUMP is a tool that allows providers to manage their metadata.

## 2 HOW TO USE PUMP

Since data providers use PUMP to manage their metadata in ECHO, login to ECHO is necessary to safeguard the metadata integrity. PUMP uses ECHO registration information to authenticate a user.

### 2.1 Description of PUMP UI

The PUMP User Interface uses a set of three panels to interact with users: the ECHO server session, the navigator, and the data display/work area. Each panel controls different processes of ECHO. The figure below shows a typical screen:

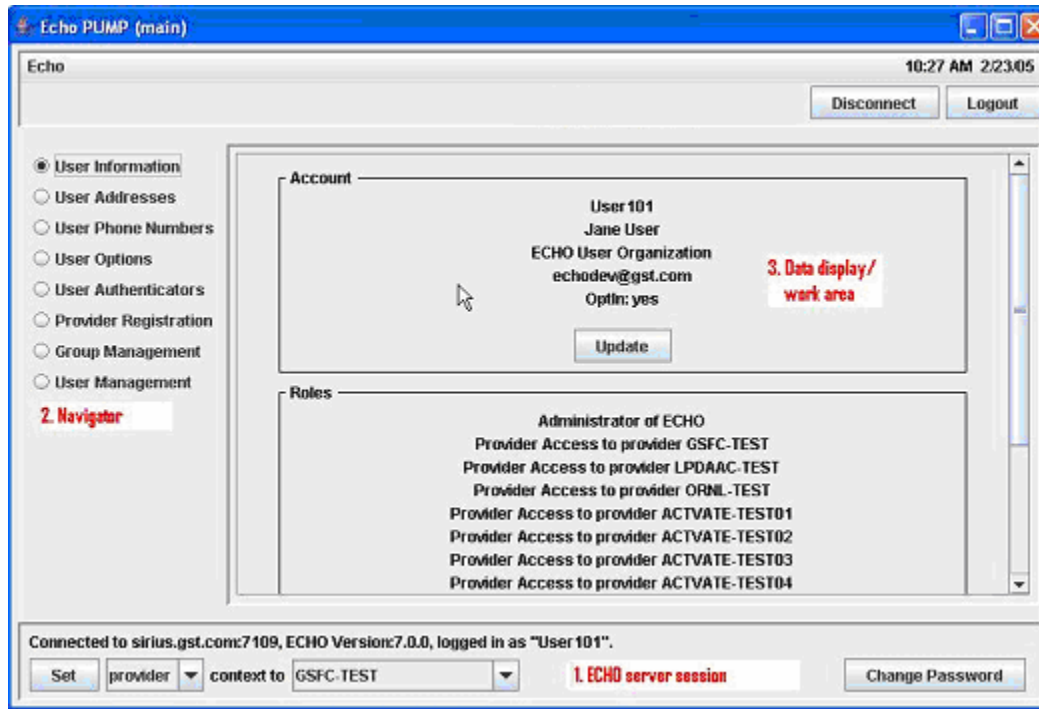


Figure 1. PUMP working screen

1. The ECHO server session panel is located at the bottom of the screen. It allows users to perform server related functions, e.g., set/leave provider context, login to ECHO, change user's own password, and disconnect from the ECHO server.
2. The navigator panel on the left of the screen allows users to select a task through a list of radio buttons.
3. The data display/work area panel occupies the remaining screen. This panel displays the data and parameters the users can specify for the task selected from the navigator panel.

### 2.2 How to get and install PUMP

1. The PUMP client installation package can be found at the following link:  
<http://api.echo.nasa.gov/echo-pump/pump.jnlp>
2. Select the link and follow the installation instructions. The PUMP client installs using Java Web Start technology. Version 1.4.2 or higher of the Java Runtime Environment (JRE) is required to install PUMP on a local machine. The JRE is available from the Sun Microsystems's JRE download page (<http://java.sun.com/j2se/desktopjava/jre/index.jsp>).

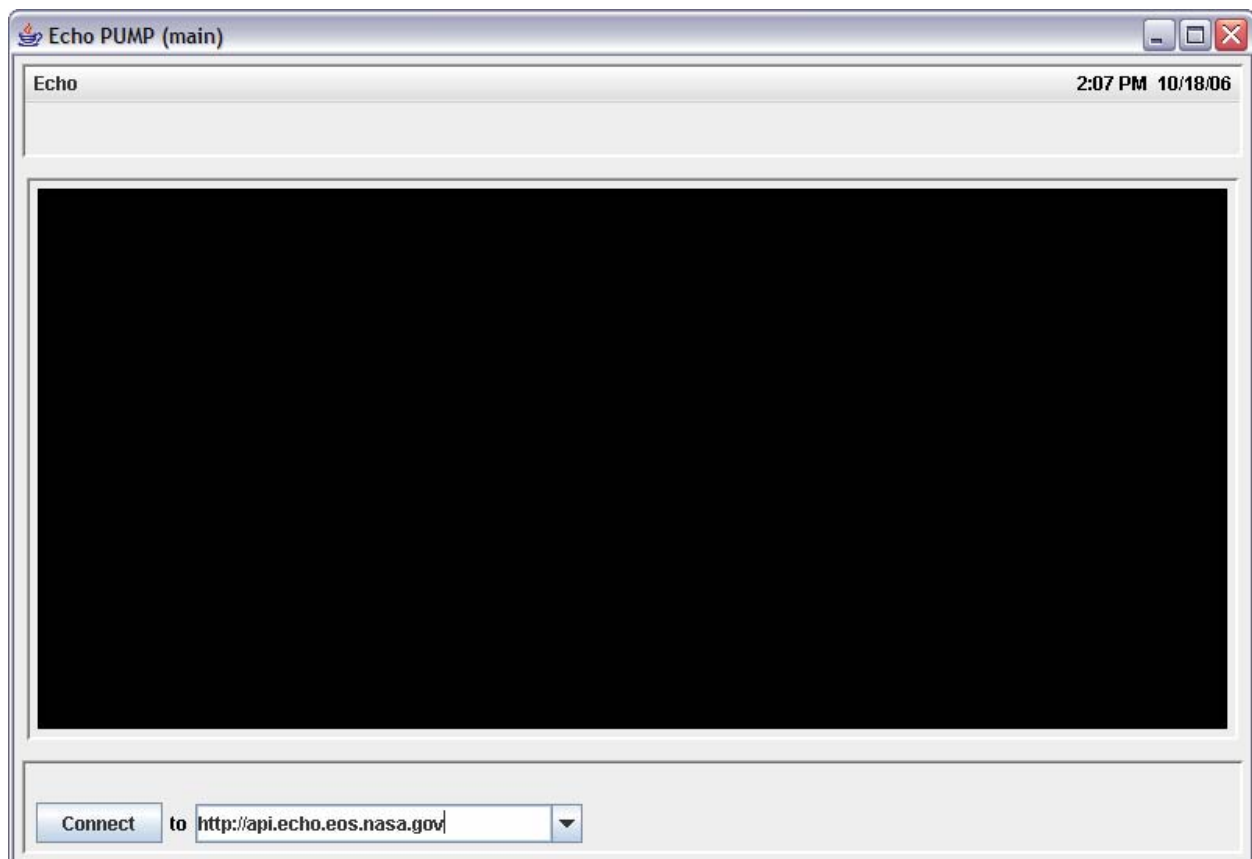
Note: When you select the Java Web Start PUMP installation link, a security warning will be displayed. The warning includes "Failed to verify the authenticity of the certificate" and "It is highly recommended not to install and run this code."

The reason for the warning is the ECHO Development Group created a certificate for the PUMP software. Since the certificate is not validated by an independent third-party, the Web Start software displays the warning. We are currently working on obtaining a commercial certificate for PUMP. If you have any questions or concerns about installing PUMP, please contact ECHO Operations at [echo@killians.gsfc.nasa.gov](mailto:echo@killians.gsfc.nasa.gov).

## 2.3 Connecting to ECHO

To connect to the ECHO server using PUMP:

1. When you launch the PUMP UI the following Connection screen will be displayed.
2. Select the needed ECHO server from the pull-down selection list, or type the ECHO server location into the input field. If you want to access the operational server, select <http://api-soap.echo.eos.nasa.gov/>. If you want to access the partner test system, select <http://api-test-soap.echo.eos.nasa.gov/>.
3. Select the "Connect" button. The Login screen (Figure 4) will be displayed.
4. Select the "Disconnect" button at the top of the screen to cancel your connection to the ECHO server.



**Figure 2. Connection screen**

## 2.4 Registration Service

The Registration Service is the interface that allows a user to become a registered user and allows potential providers to submit a provider application.

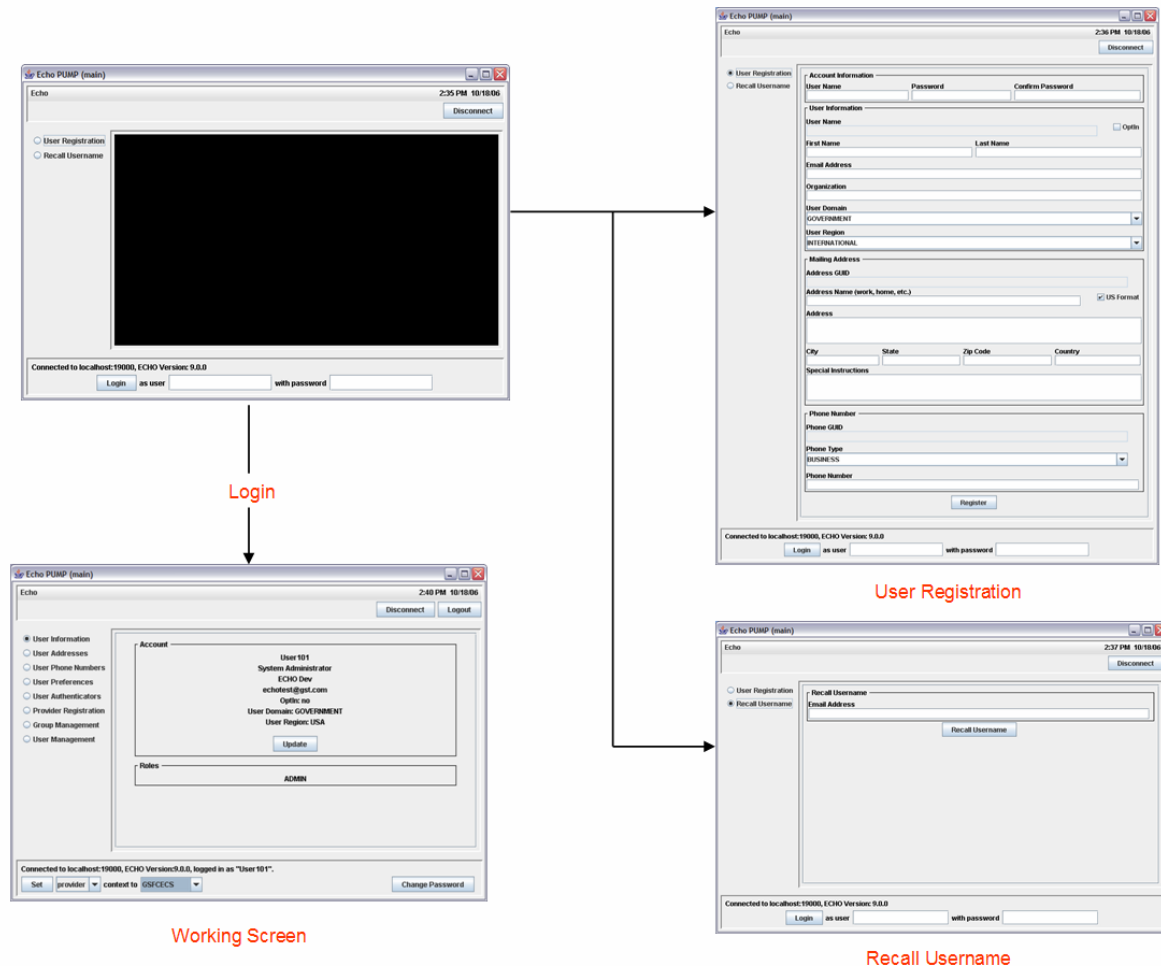


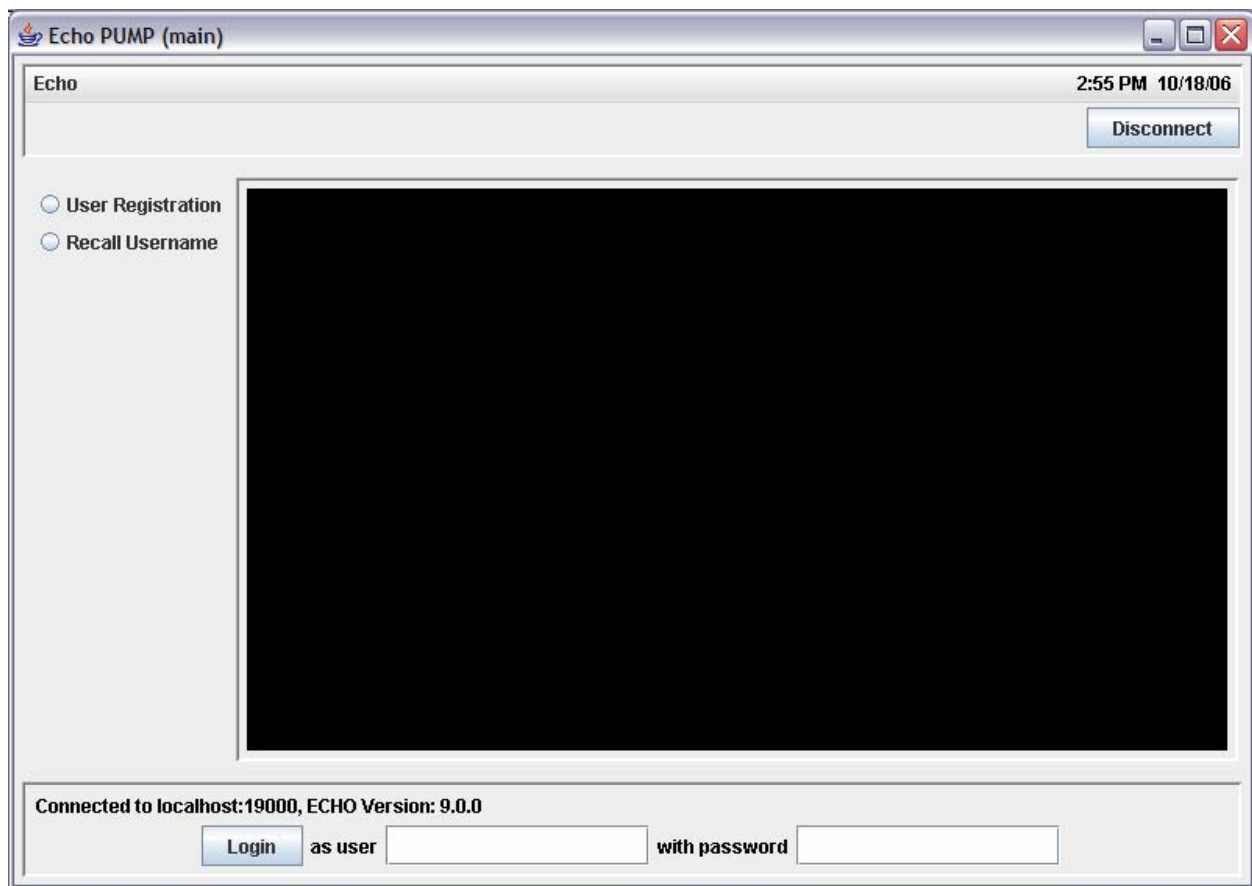
Figure 3. Registration Service

### 2.4.1 Becoming an ECHO Registered User

To become an ECHO registered user:

1. Select the "User Registration" button on the navigator panel from the Login screen (Figure 4). The User Registration screen (Figure 5) will be displayed.
2. Fill in all the input fields and select the "Register" button at the bottom of the work area panel. A message indicating successful registration will return if the information provided meets all the ECHO requirements.

*Note: ECHO requires passwords to be at least 10 characters long and incorporate at least 3 out of 4 character types, such as lower case, upper case, numerical value and special characters. In addition, special characters ("&" "<", ">", etc.) are not accepted in the registration text.*



**Figure 4. Login screen**



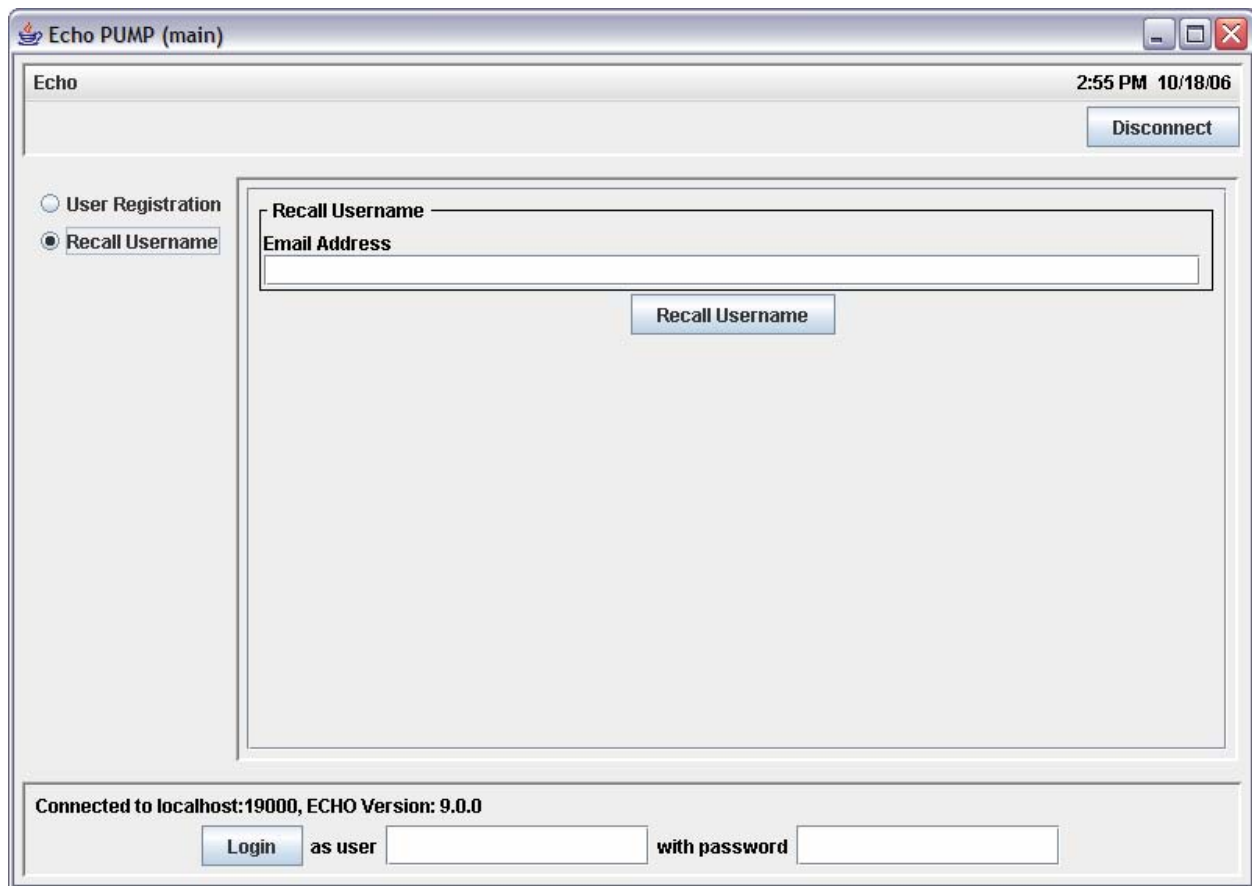
The screenshot shows the 'Echo PUMP (main)' application window. At the top, the title bar reads 'Echo PUMP (main)'. Below the title bar, the window is divided into a header area and a main content area. The header area contains the text 'Echo' on the left and the time '2:55 PM 10/18/06' on the right, with a 'Disconnect' button below the time. The main content area features a left-hand navigation panel with two radio buttons: 'User Registration' (selected) and 'Recall Username'. The main area displays the 'User Registration' form, which is organized into two sections: 'Account Information' and 'User Information'. The 'Account Information' section includes three input fields: 'User Name', 'Password', and 'Confirm Password'. The 'User Information' section includes a 'User Name' field, a 'First Name' field, a 'Last Name' field, an 'Email Address' field, an 'Organization' field, a 'User Domain' dropdown menu (currently showing 'GOVERNMENT'), and a 'User Region' dropdown menu (currently showing 'INTERNATIONAL'). There is also an 'OptIn' checkbox in the 'User Information' section. At the bottom of the window, a status bar indicates 'Connected to localhost:19000, ECHO Version: 9.0.0'. Below this, there is a 'Login' button followed by the text 'as user' and an input field, and 'with password' and another input field.

**Figure 5. User Registration**

## 2.5 Recall Username

To recall a forgotten username:

1. Select the "Recall Username" button on the navigator panel from the Login screen (Figure 4). The Recall Username screen (Figure 6) will be displayed.
2. Fill in the Email address and select the "Recall Username" button. You will receive an Email message with the Username on record for that Email address.

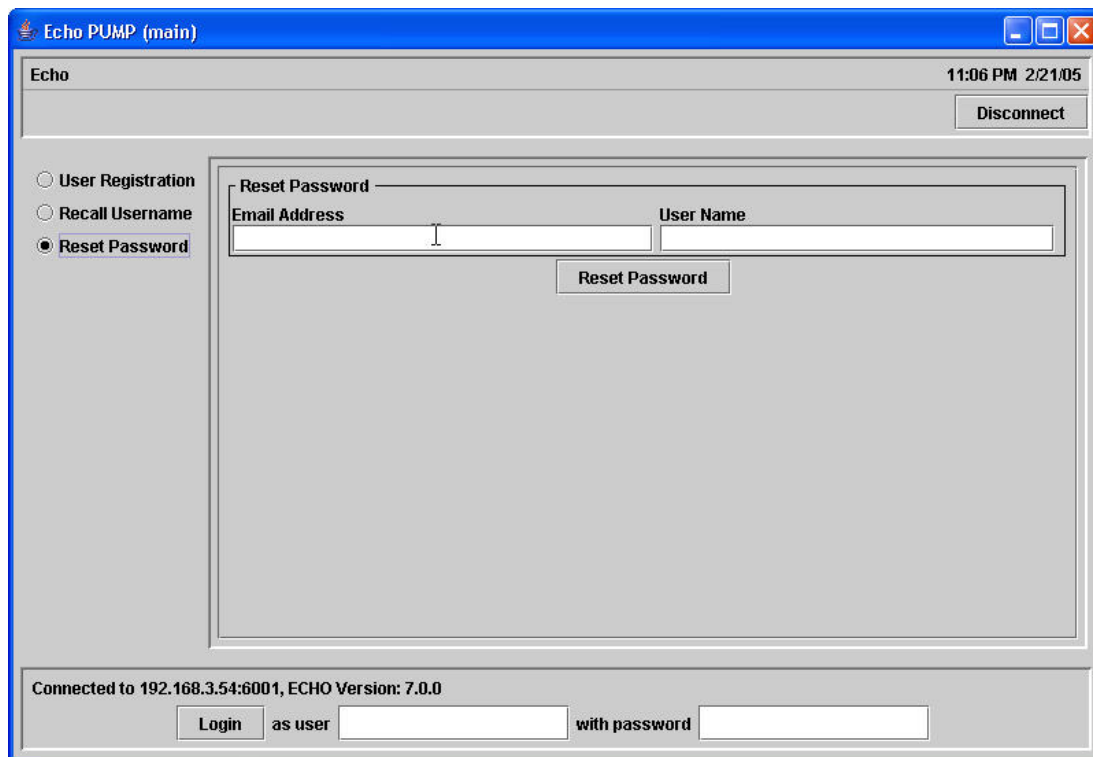


**Figure 6. Recall Username**

## **2.6 Reset Password**

To reset a forgotten password:

1. Select the "Reset Password" button on the navigator panel from the Login screen (Figure 4). The Reset Password screen (Figure 7) will be displayed.
2. Fill in the Email address and Username and select the "Reset Password" button. You will receive an Email message with a new machine generated password.



**Figure 7. Reset Password.**

## 2.7 Logging in to ECHO

From the Login screen (Figure 4):

1. Type your user name and password in the input fields and select the "Login" button. If you don't have an ECHO account, see the "Registration Service" section.
2. Once you are logged in to the ECHO server via PUMP, you will be presented with the Display User Information screen (Figure 8).
3. From this point you will be allowed to perform different tasks depending on the level of permissions you have. The permissions are based on the type of user you are.
  - a. All registered users can manage their own user information and perform all of the tasks described in the Registered Users section.
  - b. A registered user who is designated as a group manager can perform group management tasks such as maintaining the group's description, name, and membership roster. A group manager can create groups if he/she also has the provider role.
  - c. A registered user with the provider role can access and update information about the providers with which they are associated. Providers can perform all of the tasks described in this document.

### 3 REGISTERED USERS

#### 3.1 User Information

To view your user information:

- Select the “User Information” button on the navigator panel from the Display User Information screen (Figure 8).

Echo PUMP (main)

Echo 2:54 PM 10/18/06

Disconnect Logout

☒ User Information  
☐ User Addresses  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☐ Group Management  
☐ User Management

**Account**

User101  
System Administrator  
ECHO Dev  
echotest@gst.com  
OptIn: no  
User Domain: GOVERNMENT  
User Region: USA

Update

**Roles**

ADMIN

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

Set provider context to GSFCECS Change Password

**Figure 8. Display User Information**

To change the information:

1. Select the “Update” button on the Display User Information screen (Figure 8). The Edit User Information screen (Figure 9) will be displayed.
2. Fill in the fields and select the “Update” button. The screen will display the updated values.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screen, and no changes will be saved.*

**Echo PUMP (main)**

**Echo** 10:05 AM 10/20/06

**Disconnect** **Logout**

**User Information** (selected)  
 User Addresses  
 User Phone Numbers  
 User Preferences  
 User Authenticators  
 Provider Registration  
 Group Management  
 User Management

**User Name**  
 User101 ☐ OptIn

**First Name** **Last Name**  
 System Administrator

**Email Address**  
 user@domain.com

**Organization**  
 ECHO Org

**User Domain**  
 GOVERNMENT

**User Region**  
 USA

**Update** **Cancel**

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

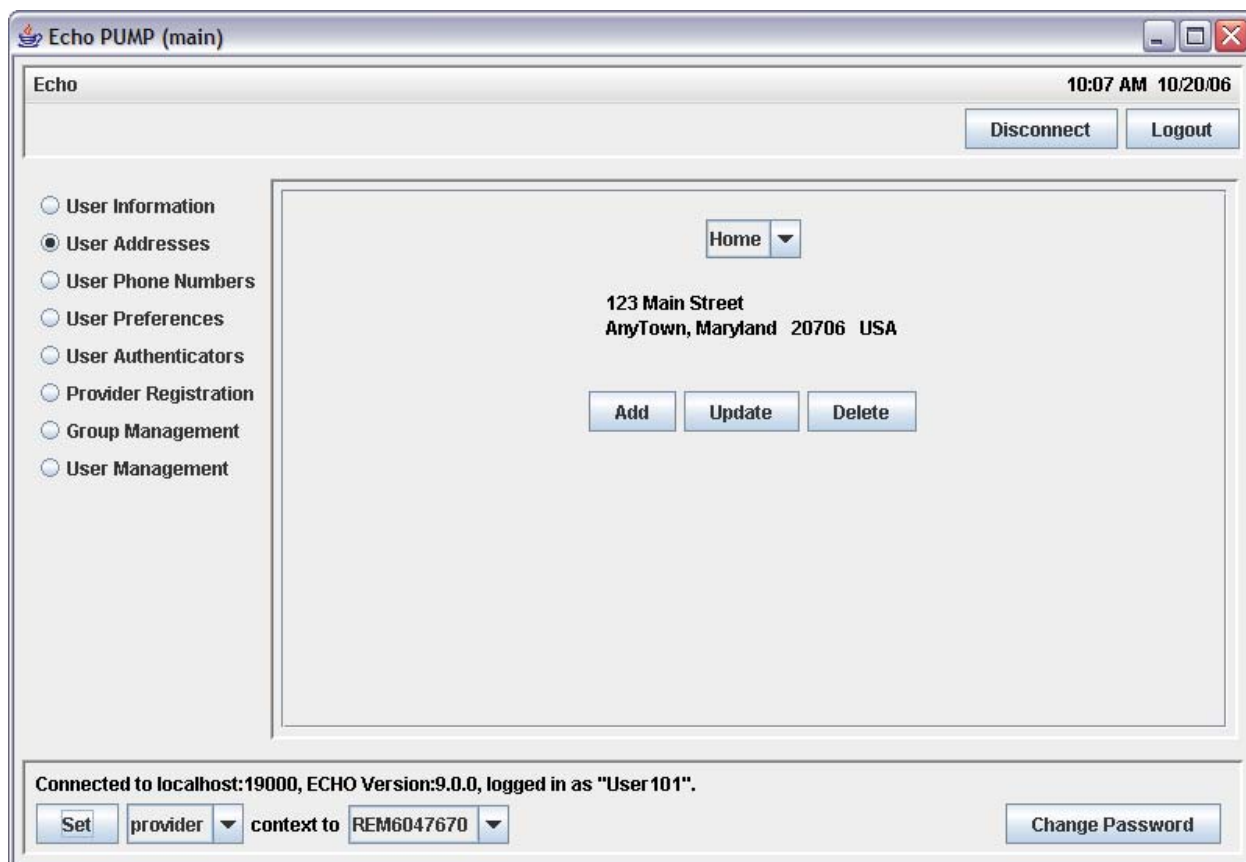
**Set** **provider** **context to** REM6047670 **Change Password**

**Figure 9. Edit User Information**

### 3.2 User Addresses

To view your user address information:

- Select the "User Addresses" button on the navigator panel from the Display User Information screen (Figure 8). The Display User Addresses screen (Figure 10) will be displayed.



**Figure 10. Display User Addresses**

To add a new user address:

1. Select the “Add” button on the Display User Addresses screen (Figure 10). The Add User Address screen (Figure 11) will be displayed.
2. Fill in the fields and select the “Add” button. The screen will display the new added information.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

**Echo PUMP (main)**

10:07 AM 10/20/06

Disconnect Logout

☐ User Information  
☒ **User Addresses**  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☐ Group Management  
☐ User Management

**Address GUID**

**Address Name (work, home, etc.)** ☐ US Format

**Address**

**City** **State** **Zip Code** **Country**

**Special Instructions**

Add Cancel

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

Set provider context to REM6047670 Change Password

**Figure 11. Add User Address**

To update an existing user address:

1. Select the address using the pull-down menu on the Display User Addresses screen (Figure 10).
2. Select the "Update" button. The Update User Address screen (Figure 12) will be displayed.
3. Modify any fields that need to change and select the "Update" button. The screen will display the updated values.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

**Echo PUMP (main)** 10:08 AM 10/20/06

Disconnect Logout

☐ User Information  
☒ **User Addresses**  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☐ Group Management  
☐ User Management

**Address GUID**  
8C2F4FB1-4304-F8EA-D8AB-A0DC0C5BA62D

**Address Name (work, home, etc.)**  
Home ☒ US Format

**Address**  
123 Main Street

**City** AnyTown **State** Maryland **Zip Code** 20706 **Country** USA

**Special Instructions**  
null

Update Cancel

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

Set provider context to REM6047670 Change Password

**Figure 12. Update User Address**

### 3.3 User Phone Numbers

To view phone number information:

- Select the “User Phone Numbers” button on the navigator panel from the Display User Information screen (Figure 8). The Display User Phone Numbers screen (Figure 13) will be displayed.





**Figure 13. Display User Phone Numbers**

To add a new phone number:

1. Select the “Add” button on the Display User Phone Numbers screen (Figure 13). The Add User Phone Number screen (Figure 14) will be displayed.
2. Fill in the fields and select the “Add” button. The screen will display the new information.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

Echo PUMP (main)

Echo 10:09 AM 10/20/06

Disconnect Logout

☐ User Information  
☐ User Addresses  
☒ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☐ Group Management  
☐ User Management

Phone GUID

Phone Type  
BUSINESS

Phone Number

Add Cancel

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

Set provider context to REM6047670 Change Password

**Figure 14. Add User Phone Number**

To change the phone number information:

1. Select the number using the pull-down menu on the Display User Phone Numbers screen (Figure 13).
2. Select the "Update" button. The Update User Phone Number screen (Figure 15) will be displayed.
3. Modify the information you want to change and select the "Update" button. The screen will display the updated information.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

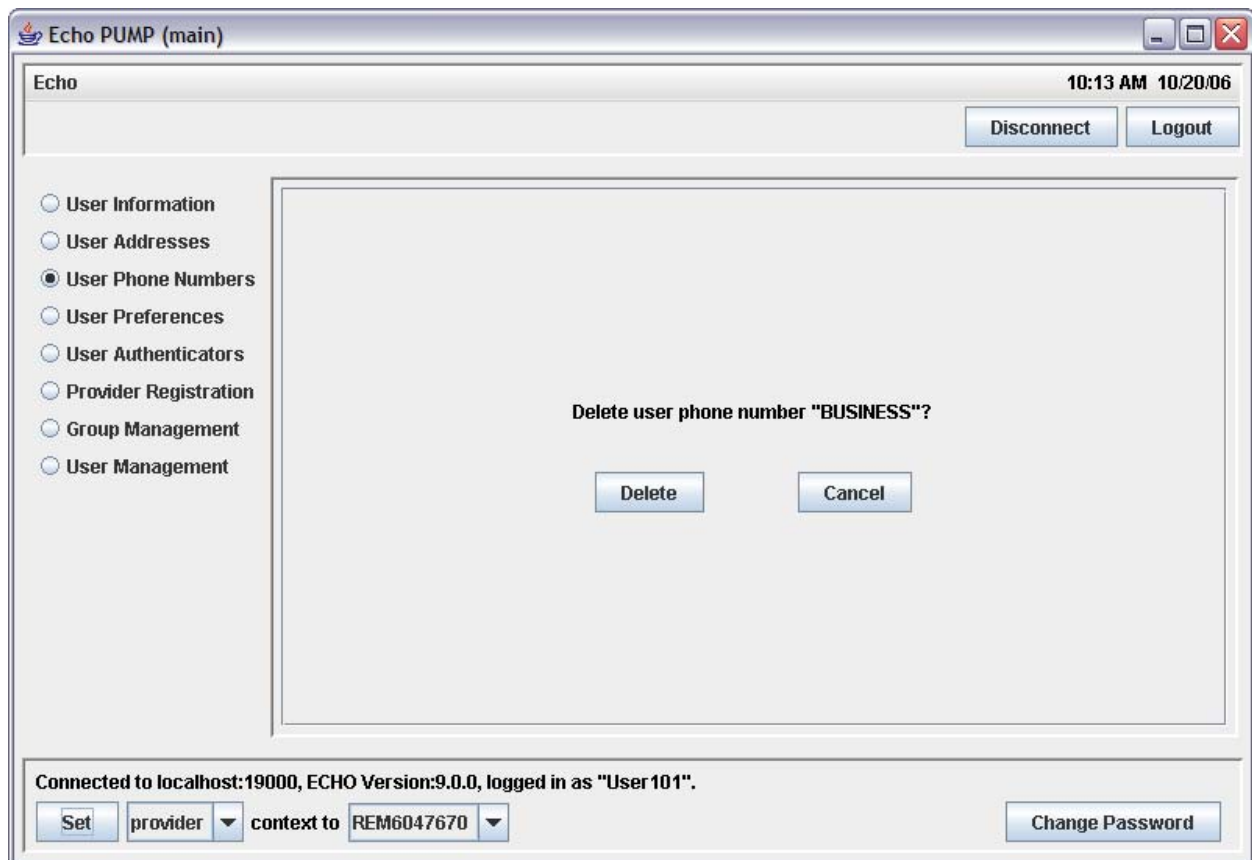
The screenshot shows the 'Echo PUMP (main)' application window. The title bar includes standard window controls. The top right corner displays the time '10:10 AM 10/20/06' and buttons for 'Disconnect' and 'Logout'. The left sidebar contains a list of menu items, with 'User Phone Numbers' selected. The main content area displays the 'Update User Phone Number' form. This form includes three input fields: 'Phone GUID' with the value '9286B6F4-D936-C43D-0629-632227ED721F', 'Phone Type' with a dropdown menu showing 'BUSINESS', and 'Phone Number' with the value '240-123-4567'. Below these fields are 'Update' and 'Cancel' buttons. At the bottom of the window, a status bar indicates the connection status: 'Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101"'. To the left of the status bar are 'Set', 'provider', and 'context to' dropdown menus, with 'context to' showing 'REM6047670'. A 'Change Password' button is located on the right side of the status bar.

**Figure 15. Update User Phone Number**

To delete a user phone number:

1. Select the phone number using the pull-down menu on the Display User Phone Number screen (Figure 13).
2. Select the “Delete” button. The Delete User Phone Number screen (Figure 16) prompting you to confirm the deletion of the number will be displayed.
3. Select the “Delete” button and the user phone number will be deleted.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 16. Delete User Phone Number**

### 3.4 User Preferences

To view user preferences information:

- Select the "User Preferences" button on the navigator panel from the Display User Information screen (Figure 8). The Display User Preferences screen (Figure 17) will be displayed.

Echo PUMP (main) 10:33 AM 10/20/06

Disconnect Logout

☐ User Information  
☐ User Addresses  
☐ User Phone Numbers  
☒ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☐ Group Management  
☐ User Management

**All User Preferences**

**Shipping Contact**

First Name Last Name  
 Fist Last

Role Email Address  
 Manager user@domain.com

**Mailing Address**

☒ US Format

Address  
 123 Main Street

City State Zip Code Country  
 Any Maryland 21022 USA

Special Instructions

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

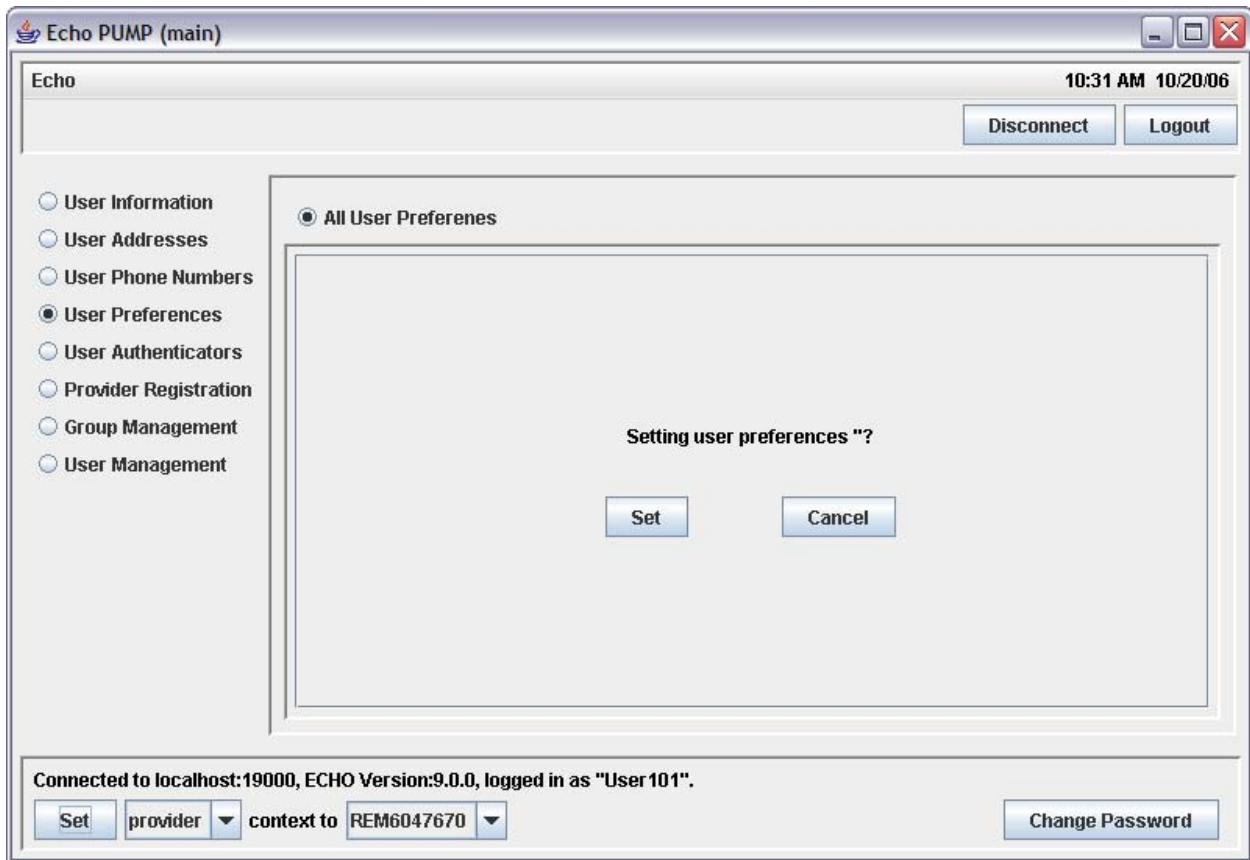
Set provider context to REM6047670 Change Password

**Figure 17. Display User Preferences**

To set user preferences information:

1. Fill in the Shipping, Billing, General Contact information, Order Notification Level, and Custom Preferences (Any valid XML) screen (Figure 17).
2. Select the "Set Preferences" button. The set User Preferences screen (Figure 18) will be displayed.
3. You can clear existing values for that user option by selecting the "Clear" button.
4. Modify the information you want to change and select the "Update" button. The screen will display the updated information. Please notes as of version 8.0, some options can be "FIXED" or "INFO" only and they will be grayed out; meaning, a user can't change the values for these option selections.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

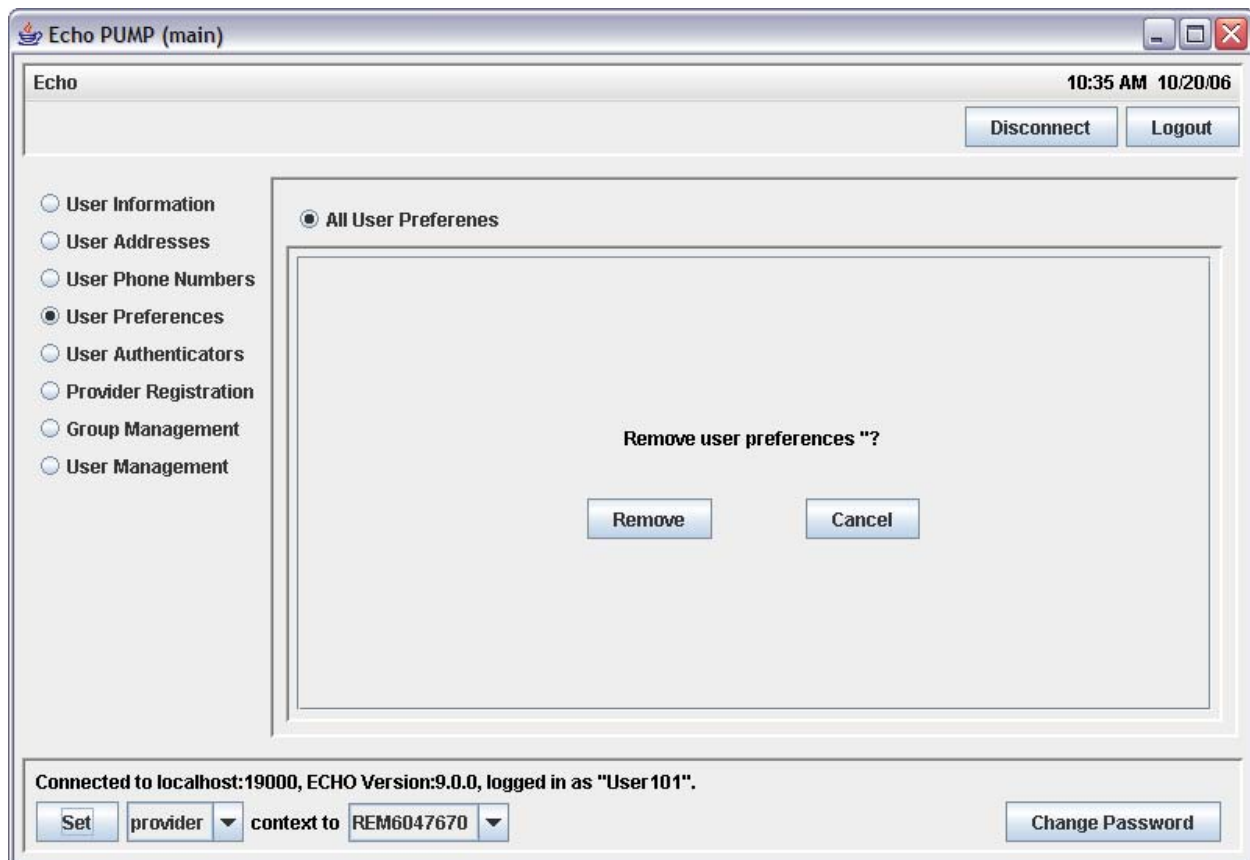


**Figure 18. Set User Preferences**

To remove user preferences information:

1. Select the "Remove Preferences" button. The remove User Preferences screen (Figure 19: Remove User PreferenceFigure 19) will be displayed.. Click on "Remove" button to clear all user preferences.

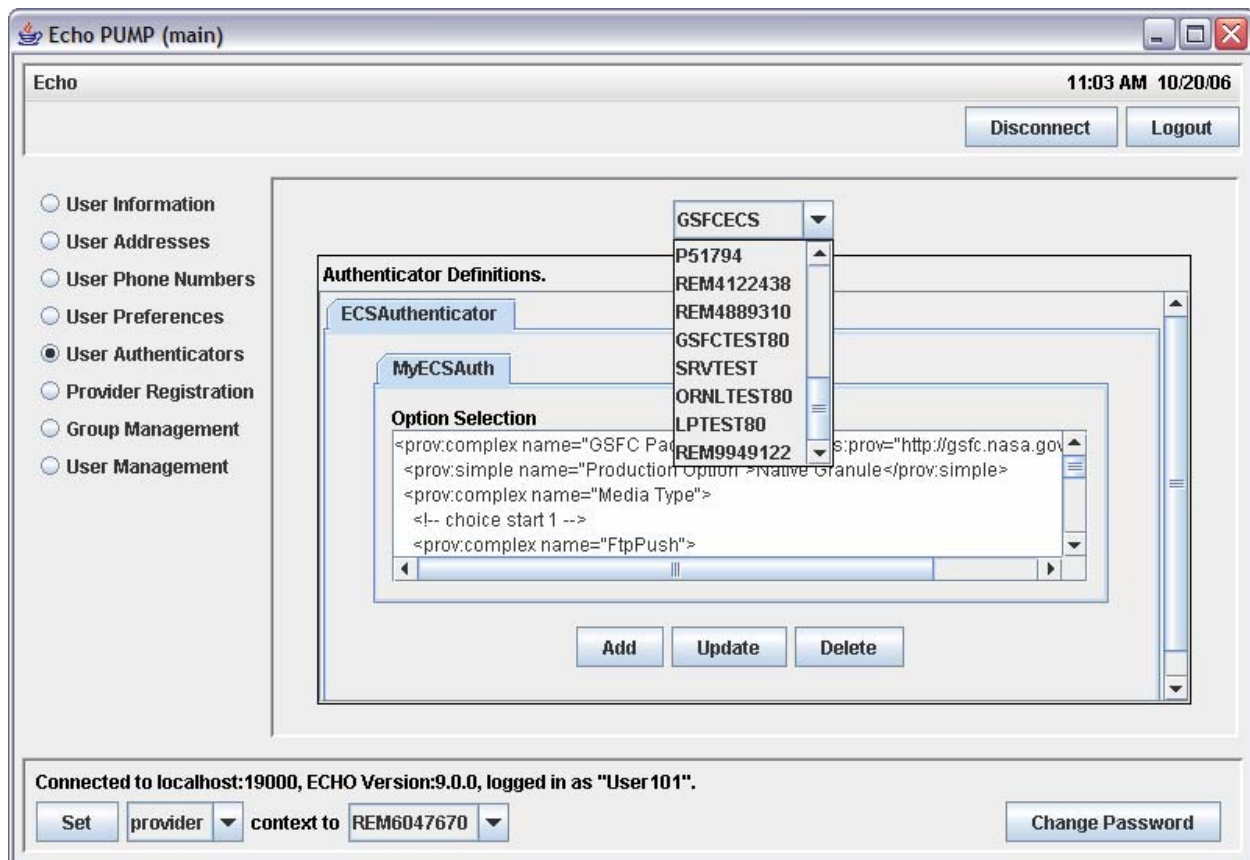
*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*



**Figure 19: Remove User Preference**

### 3.5 User Authenticators

Some orders need authentication information in order to place them. Users can define one authenticator per provider. ECHO API allows multiple authenticator definitions, for each definition, a user may choose to add multiple instances (selections) for that authenticator. For example, if a provider requires a username and password as part of the ordering process, a user can provide multiple account information. To place an order, the user can opt to include one authenticator (i.e. account information: username, password) for different orders. This version PUMP supports only one authenticator definition per provider. Future releases will support multiple definitions as well as multiple selections.

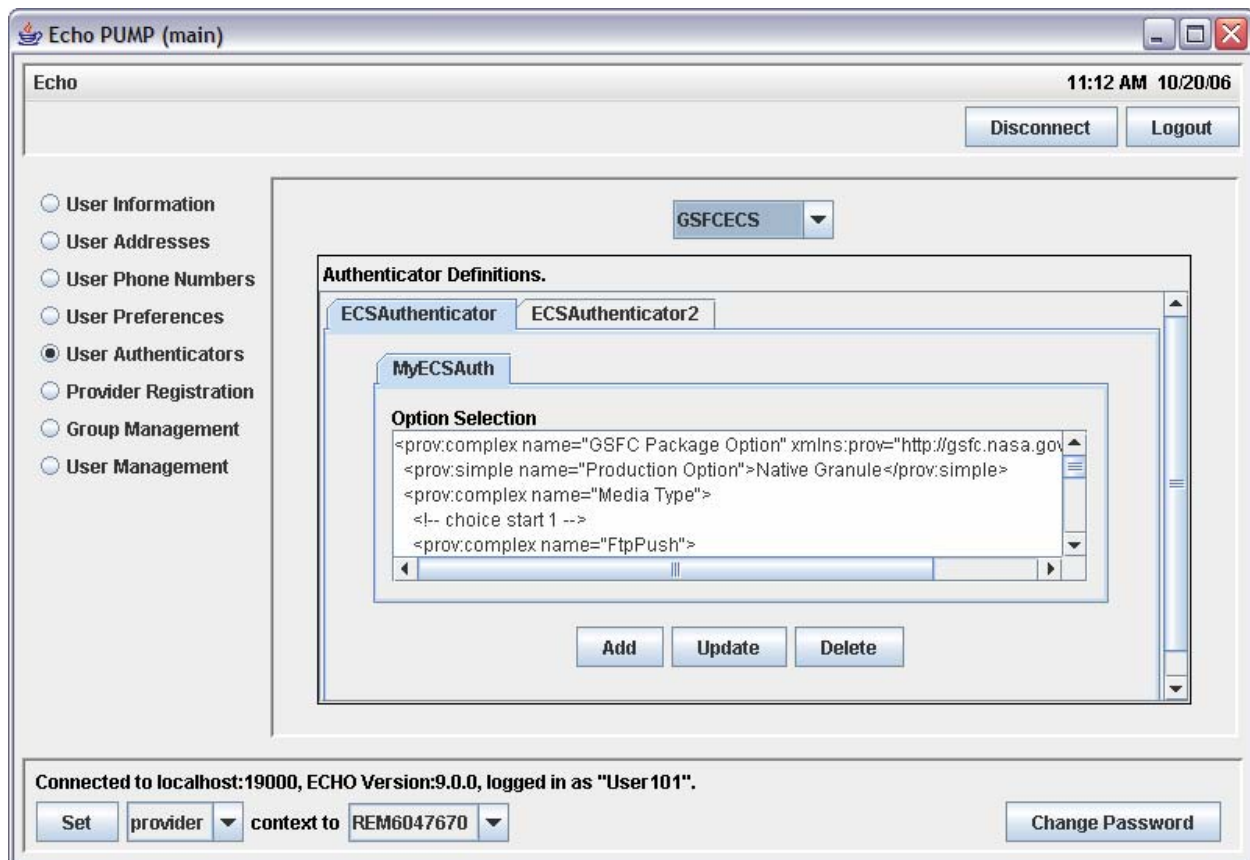


**Figure 20. Multiple User Authenticators for each authenticator definition for a provider**

To view user authenticator information:

- Select the “User Authenticators” button on the navigator panel from the Display User Information screen (Figure 8). The Display User Authenticators screen (Figure 21) will be displayed. By selecting the Provider you can add, update or delete an Authenticator for the provider.



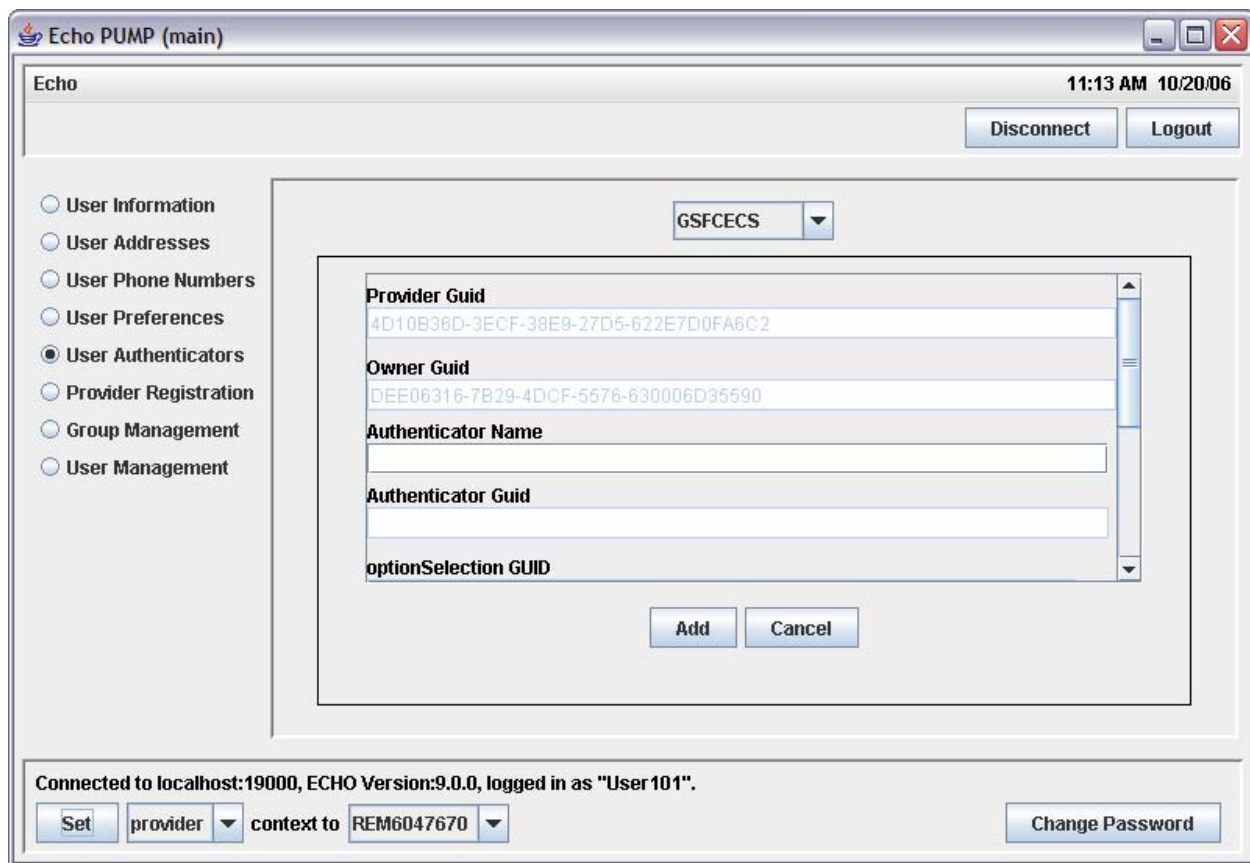


**Figure 21. Display User Authenticators**

To add a new authenticator:

1. Select the Provider using the pull-down menu on the Display User Authenticators screen (Figure 21).
2. Select the “Add” button. The Add New Authenticator screen (Figure 22) will be displayed.
3. You can clear existing values for that authenticator by selecting the “Clear” button.
4. Fill in the fields and select the “Add” button. The screen will display the new information.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

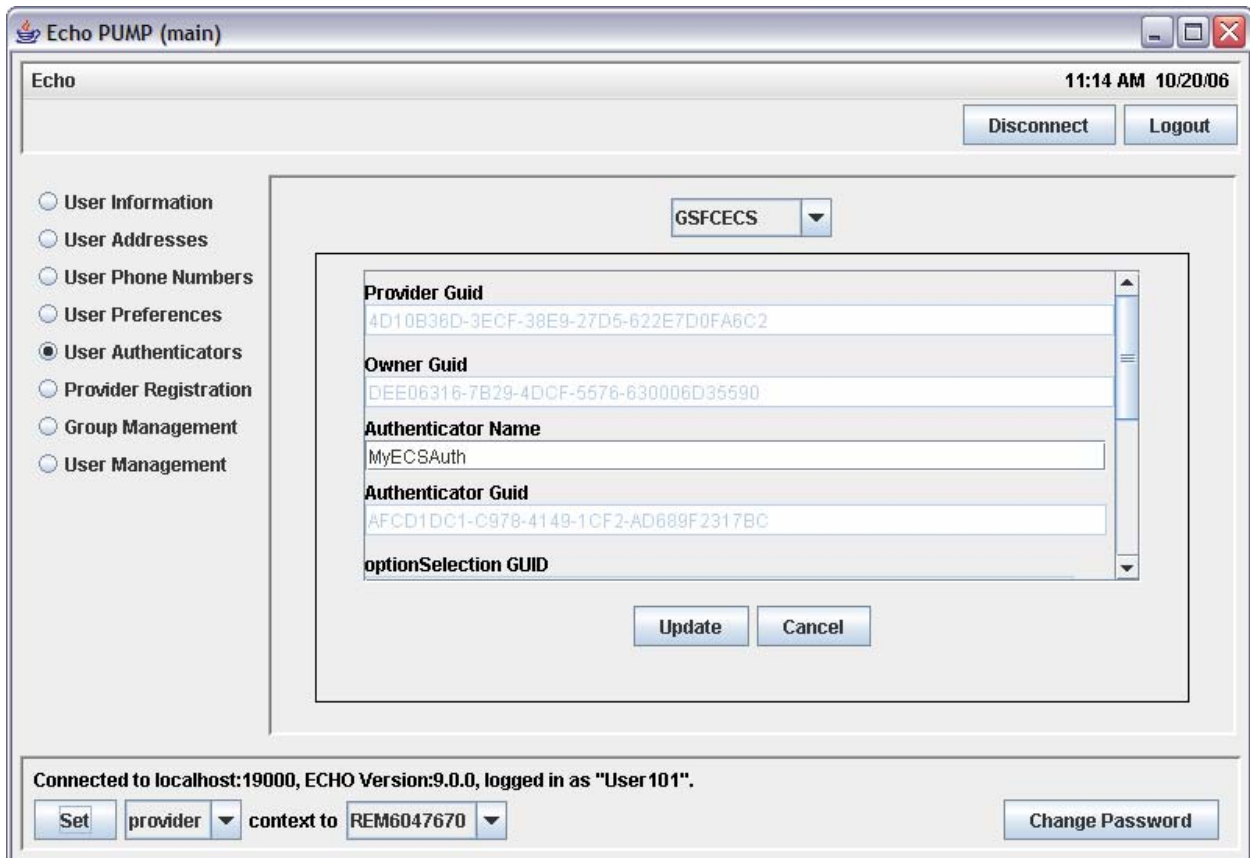


**Figure 22. Add New Authenticator**

To update an authenticator:

1. Select the Provider using the pull-down menu on the Display User Authenticators screen (Figure 21).
2. Select the “Update” button. The Update An Authenticator screen (Figure 23) will be displayed.
3. You can clear existing values for that authenticator by selecting the “Clear” button.
4. Fill in the fields and select the “Update” button. The screen will display the new information.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

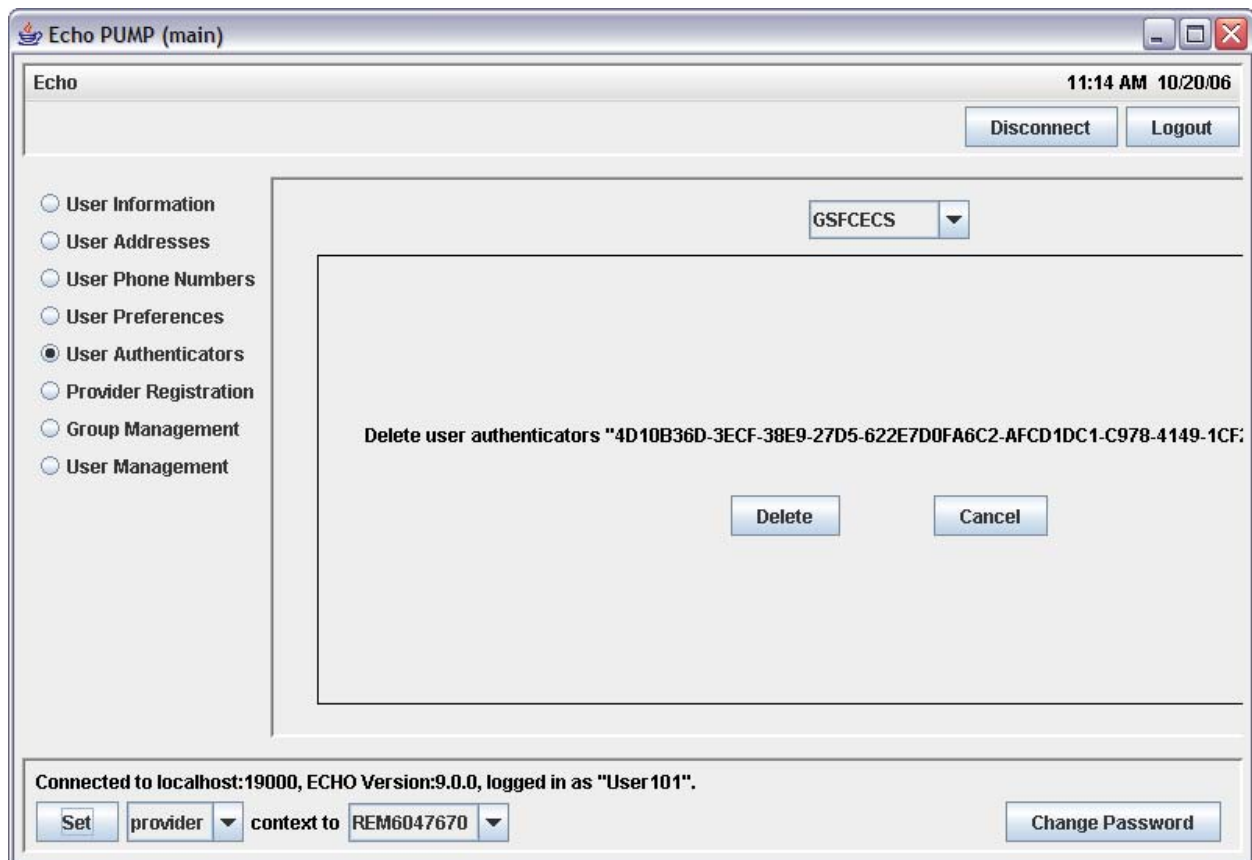


**Figure 23. Update An Authenticator**

To delete an authenticator:

1. Select the Provider using the pull-down menu on the Display User Authenticators screen (Figure 21). Select the “Delete” button.
2. The Delete An Authenticator screen (Figure 24) will be displayed. Select the user authenticator you want to delete using the pull-down menu. You will be prompted to confirm the deletion of the authenticator.
3. Select the “Delete” button and the user authenticator will be deleted.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 24. Delete An Authenticator**

## 4 GROUP MANAGEMENT

The Group Management Service provides all activities that an ECHO user needs to maintain and manage groups of users. Groups are aggregations of ECHO registered users, and there are rules governing the membership actions that can be invoked on a group. Each group consists of one owner and one or more managers. Only registered users with the provider role can create groups, but the provider can then delegate group management to any registered user. A group manager is responsible for adding and removing ECHO registered users to the group. A group manager is also responsible for the management of the group managers. Groups are used to communicate among groups of users and their managers. Groups are also used in the Data Management Service when permissions are created in metadata.

To create a group:

1. Select the “Group Management” button on the navigator panel from the Display User Information screen (Figure 8). The Group Management screen (Figure 25) will be displayed.
2. Select the “Create Group” button. The Create Group screen (Figure 26) will be displayed.
3. Fill in the fields and select the “Create” button.
4. The New Group Added screen (Figure 27) will be displayed with the added group information.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

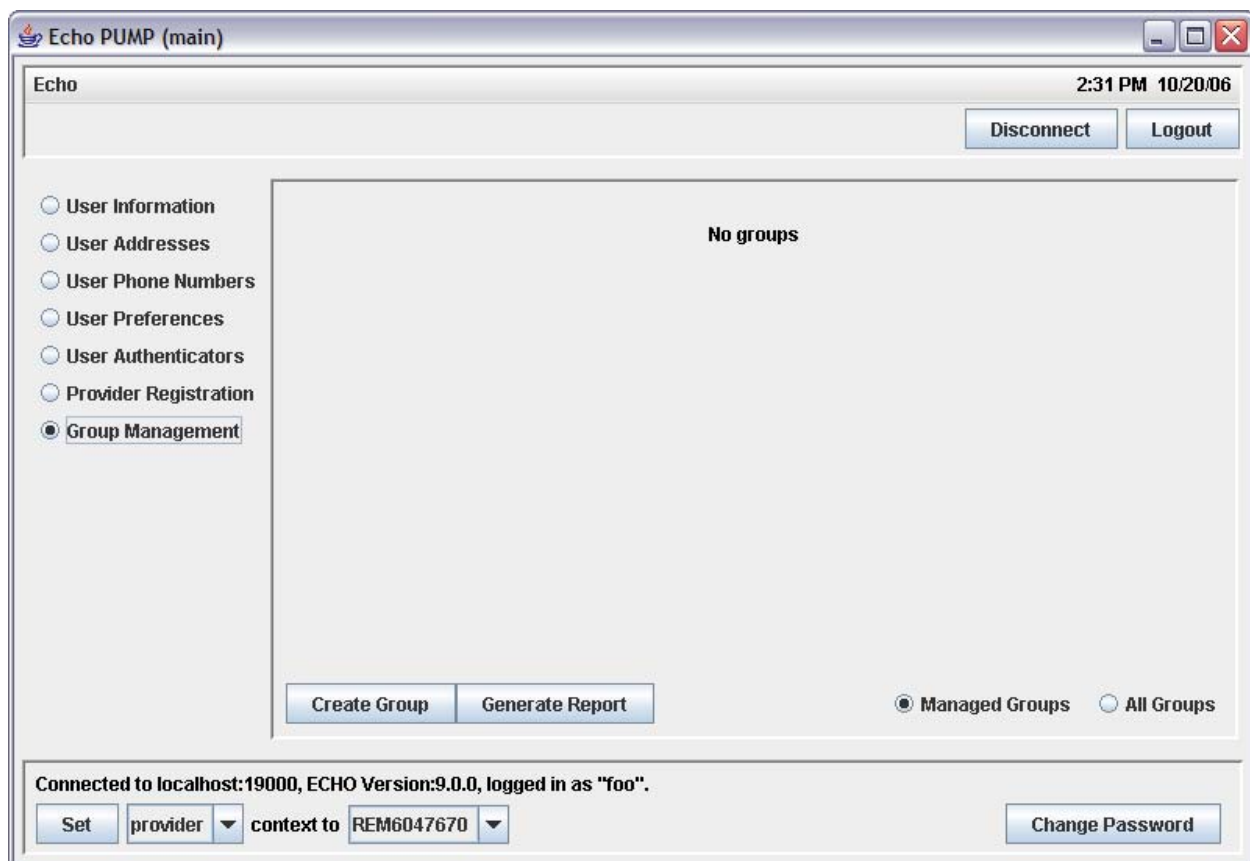


Figure 25. Group Management

Echo PUMP (main) 2:36 PM 10/20/06

Disconnect Logout

☐ User Information  
☐ User Addresses  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☒ Group Management  
☐ User Management

Enter information for new group...

**Group Name**  
Dev Group

**Description**  
Description

**Managers (blank separated user names)**  
User101 u\_1\_64044

**Members (blank separated user names)**  
foo

Create Cancel

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

Set provider context to REM6047670 Change Password

Figure 26. Create Group

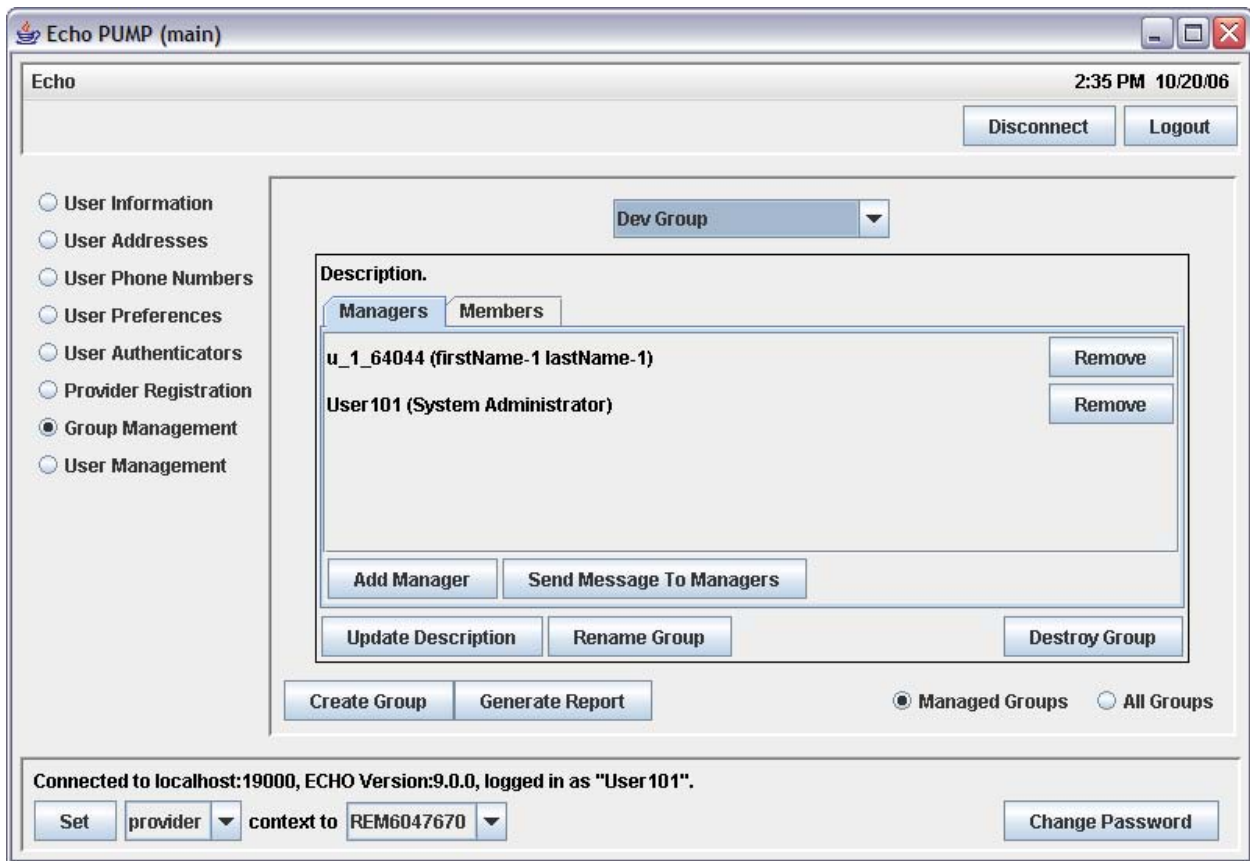
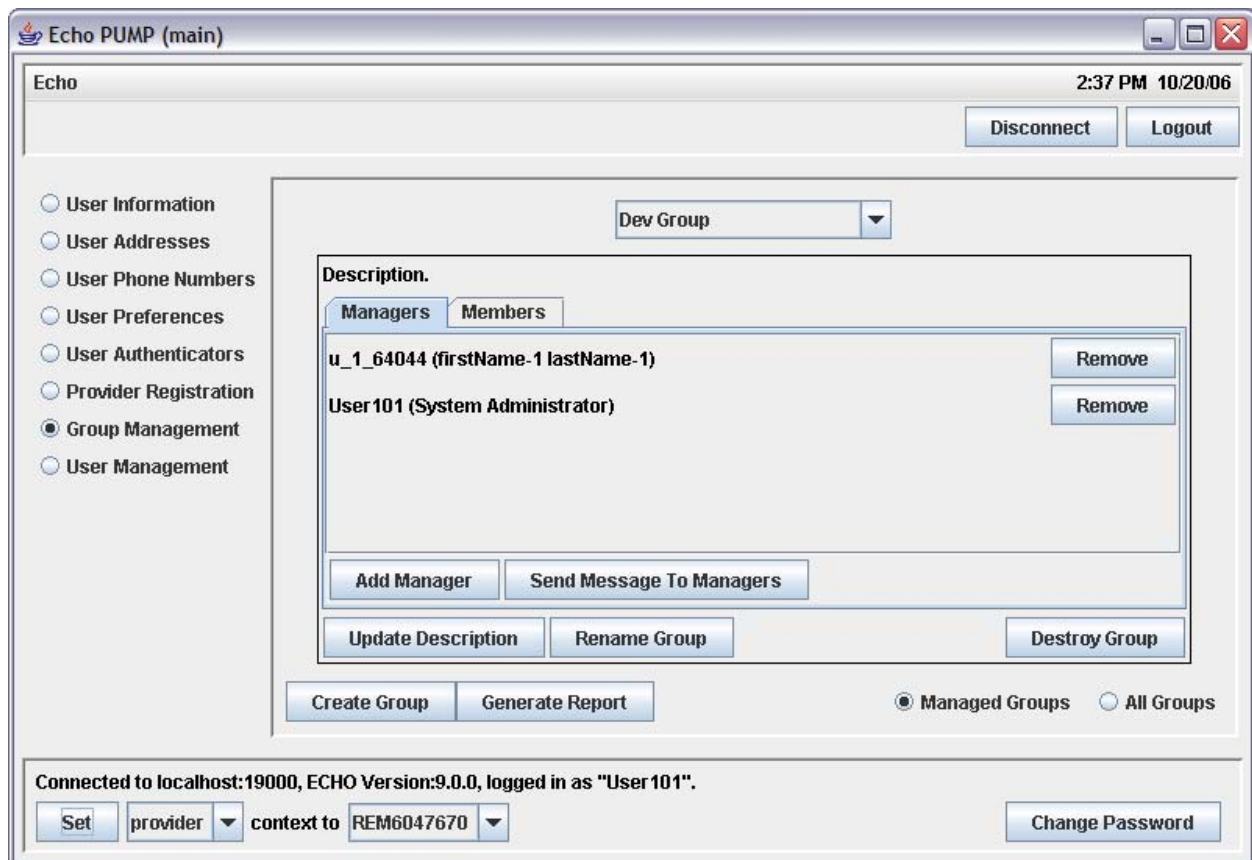


Figure 27. New Group Added

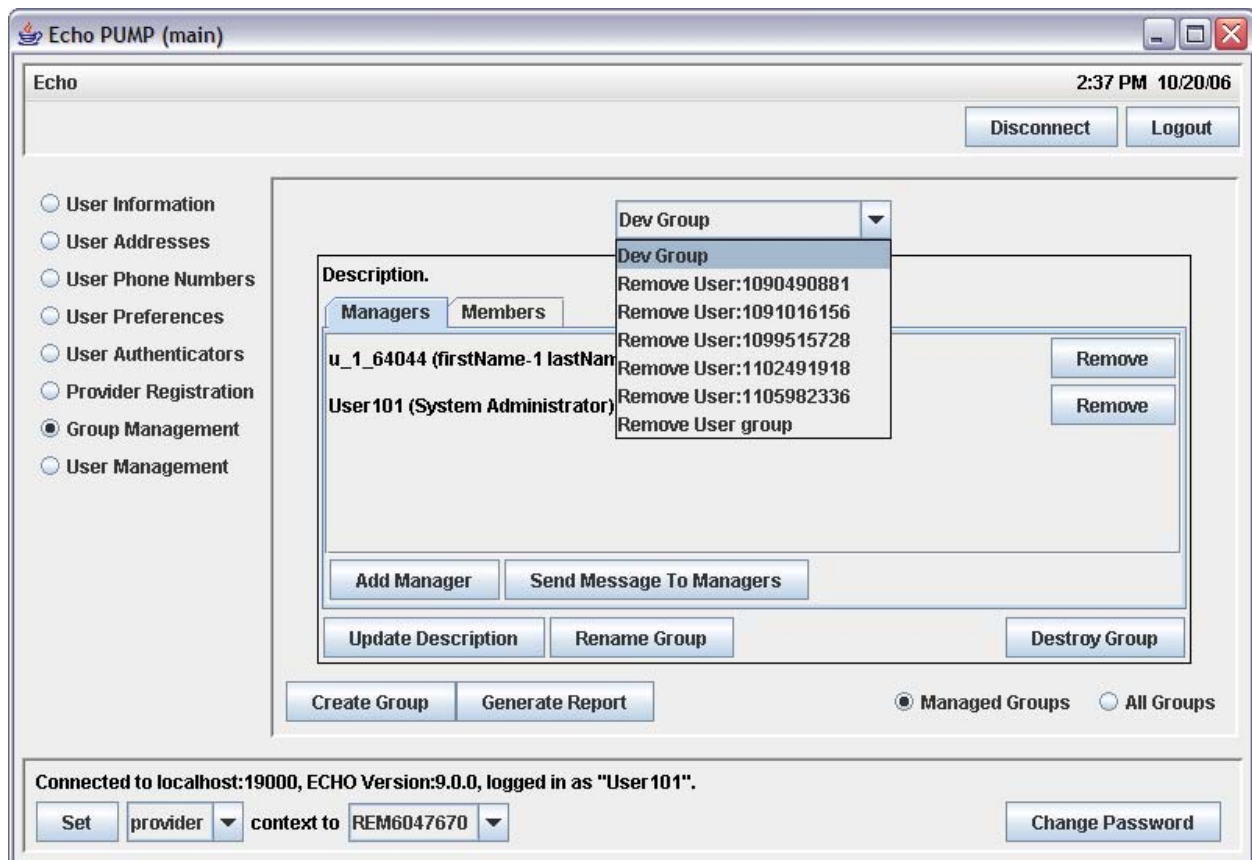


**Figure 28. Manage Group**

To toggle between just the groups that you manage and all of the groups:

- Select the “Managed Groups” or “All Groups” radio button on the Manage Group screen (Figure 28).

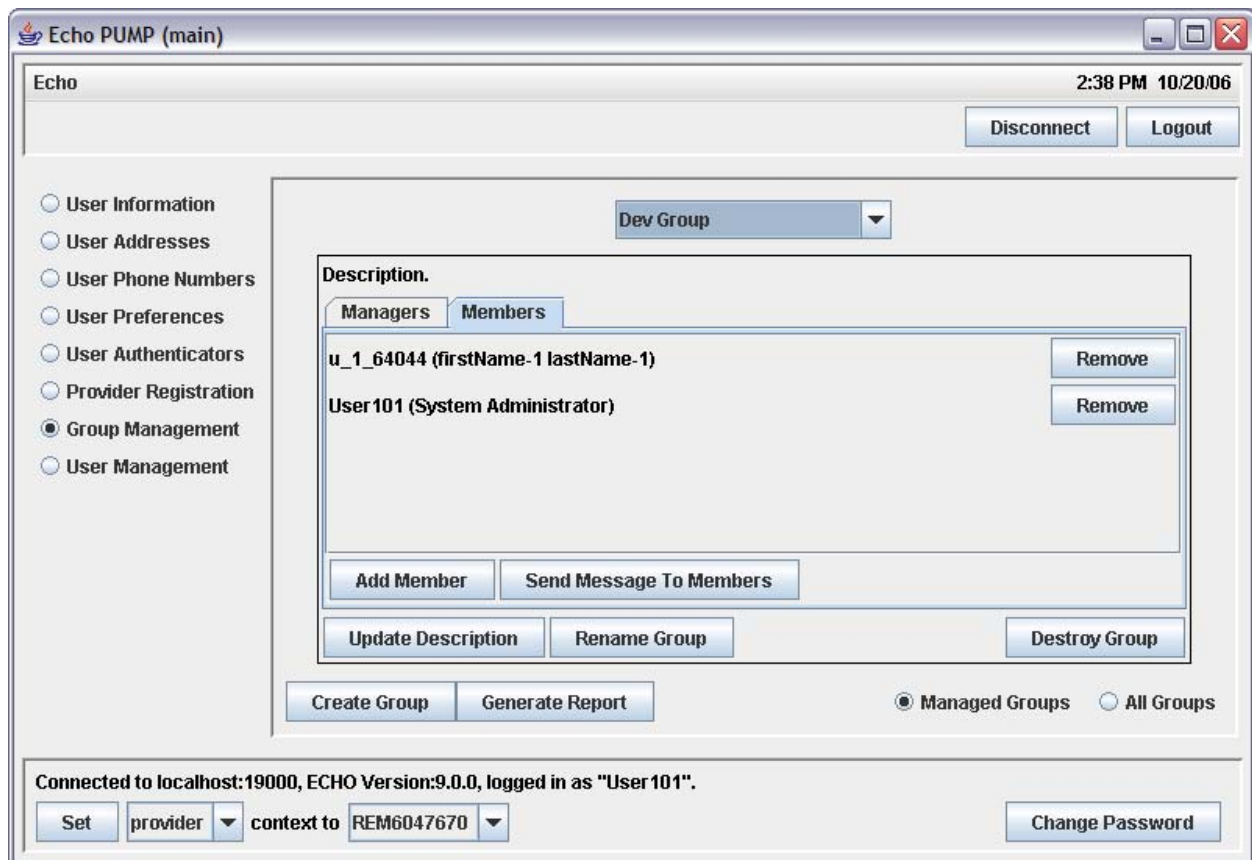




**Figure 29. Select A Group**

To view information on a particular group:

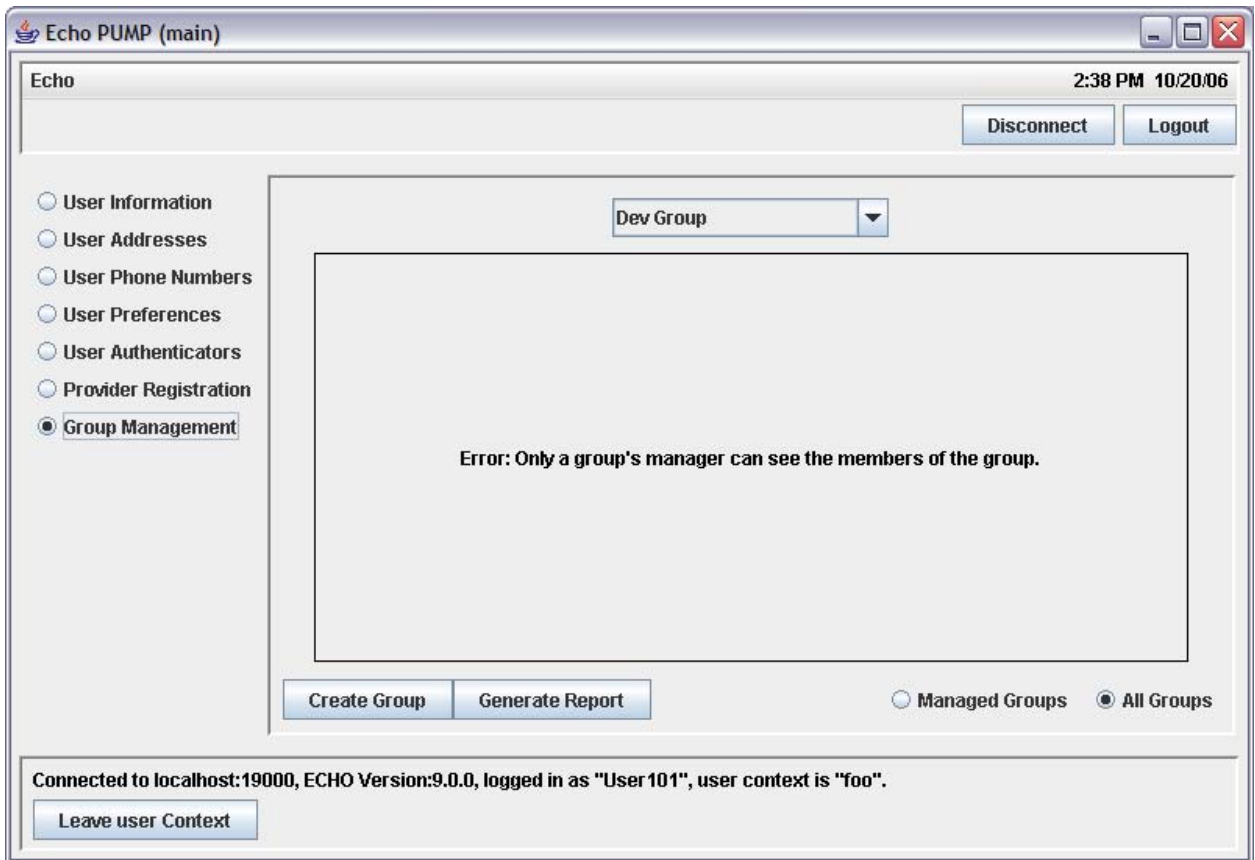
- Select the group using the pull-down menu on the Select A Group screen (Figure 29).



**Figure 30. Display Group Members**

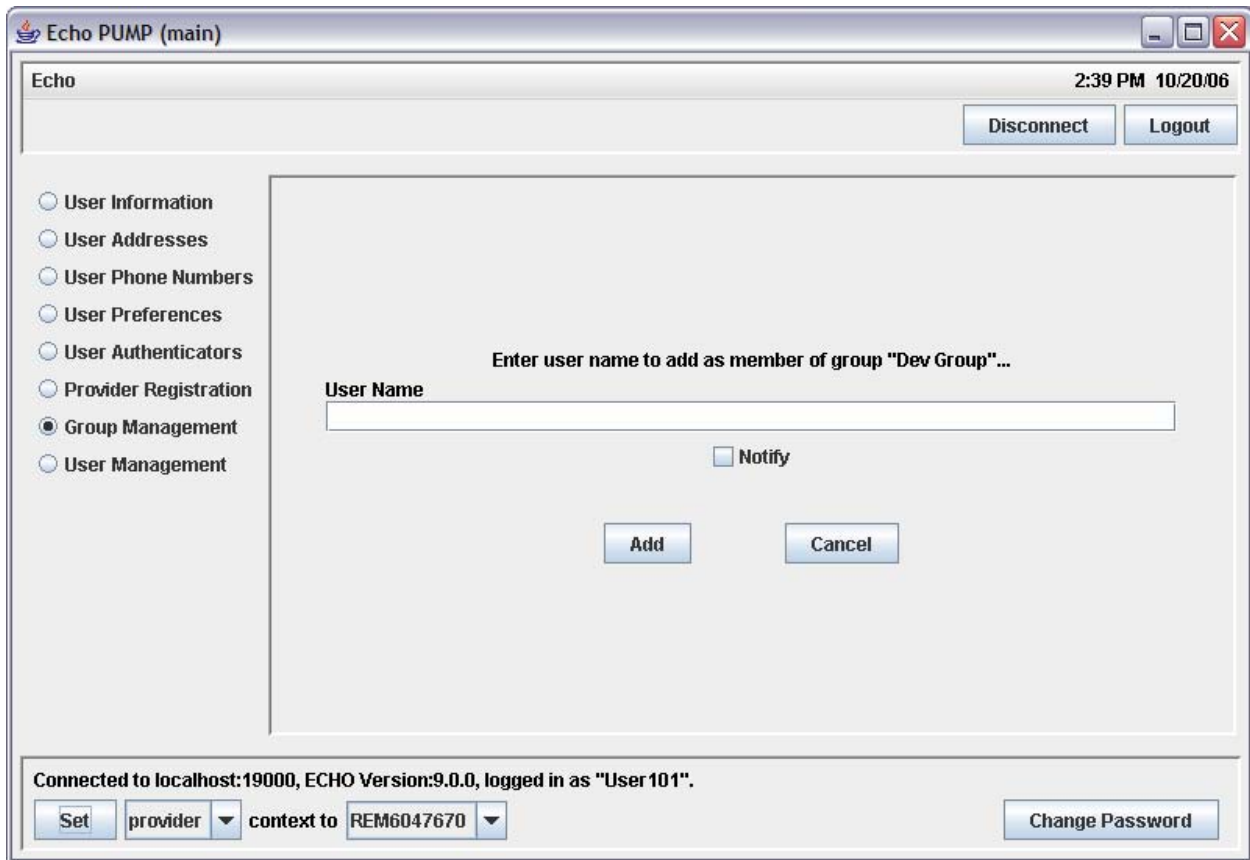
To display group members:

- Select the “Members” tab on the Display Group Members screen (Figure 30).



**Figure 31.** Error screen displayed to a non-privileged user upon attempt to view group membership list

If a user is not a member of the group and tries to view the group's membership list, the above error screen is displayed.



**Figure 32. Add Member To Group**

To add a member to a group:

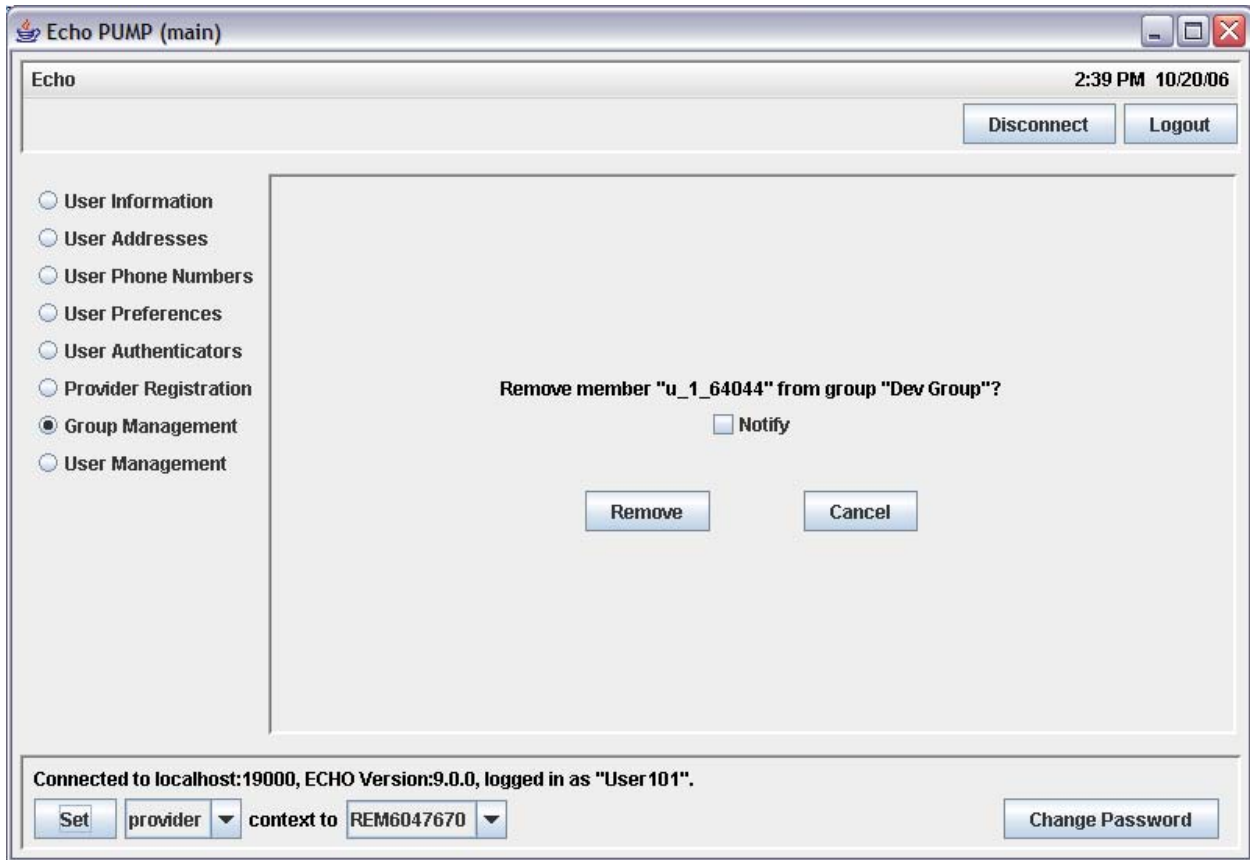
1. Select the “Members” tab on the Display Group Members screen (Figure 30).
2. Select the “Add Member” button. The Add Member To Group screen (Figure 32) will be displayed.
3. Enter user name of the member to be added.
4. Check the “Notify” checkbox if you want the member to be notified of being added to the group.
5. Select the “Add” button and the member will be added.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

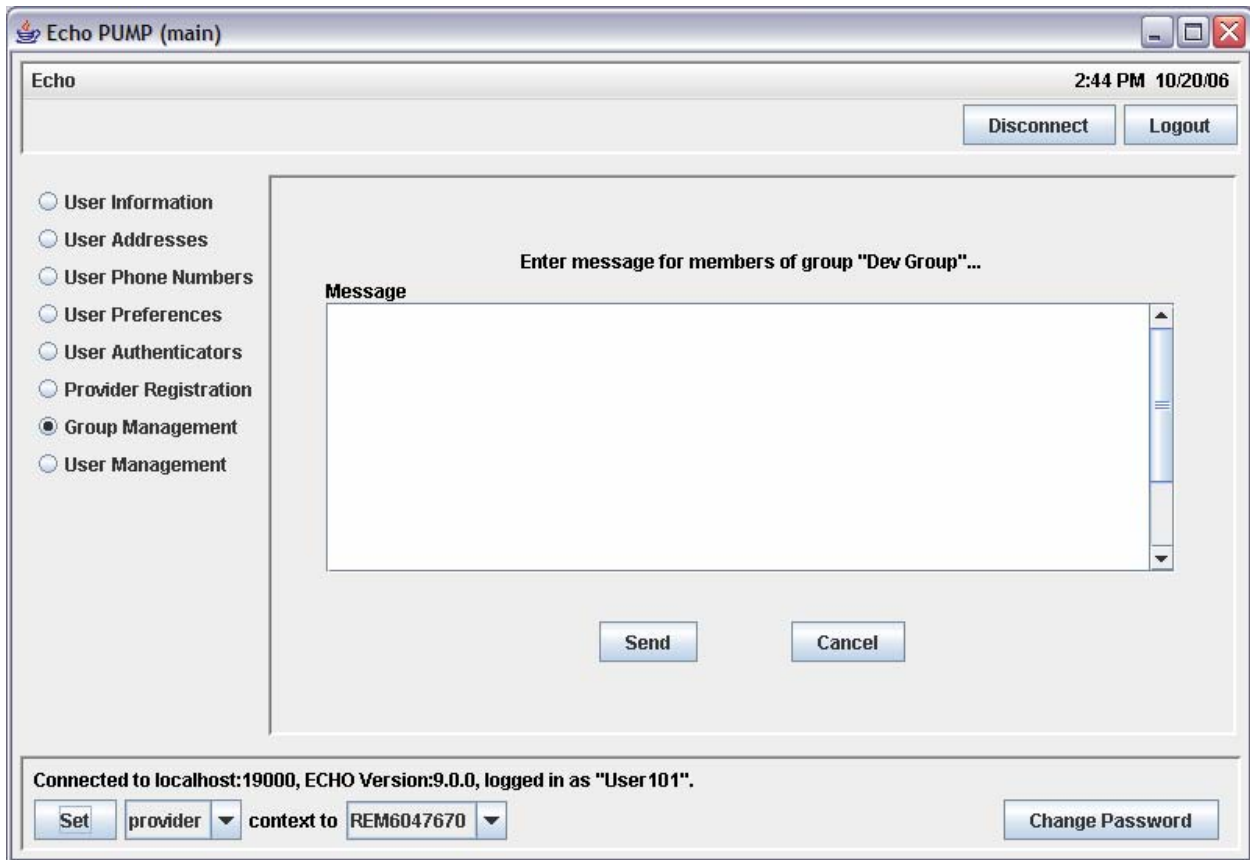
To remove a group member:

1. Select the “Members” tab on the Display Group Members screen (Figure 30). Select the member you want to delete.
2. Select the “Remove” button. The Remove Member From Group screen (Figure 33) prompting you to confirm the deletion of the member will be displayed.
3. Check the “Notify” checkbox if you want the member to be notified of the removal.
4. Select the “Remove” button and the member will be deleted.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 33. Remove Member From Group**

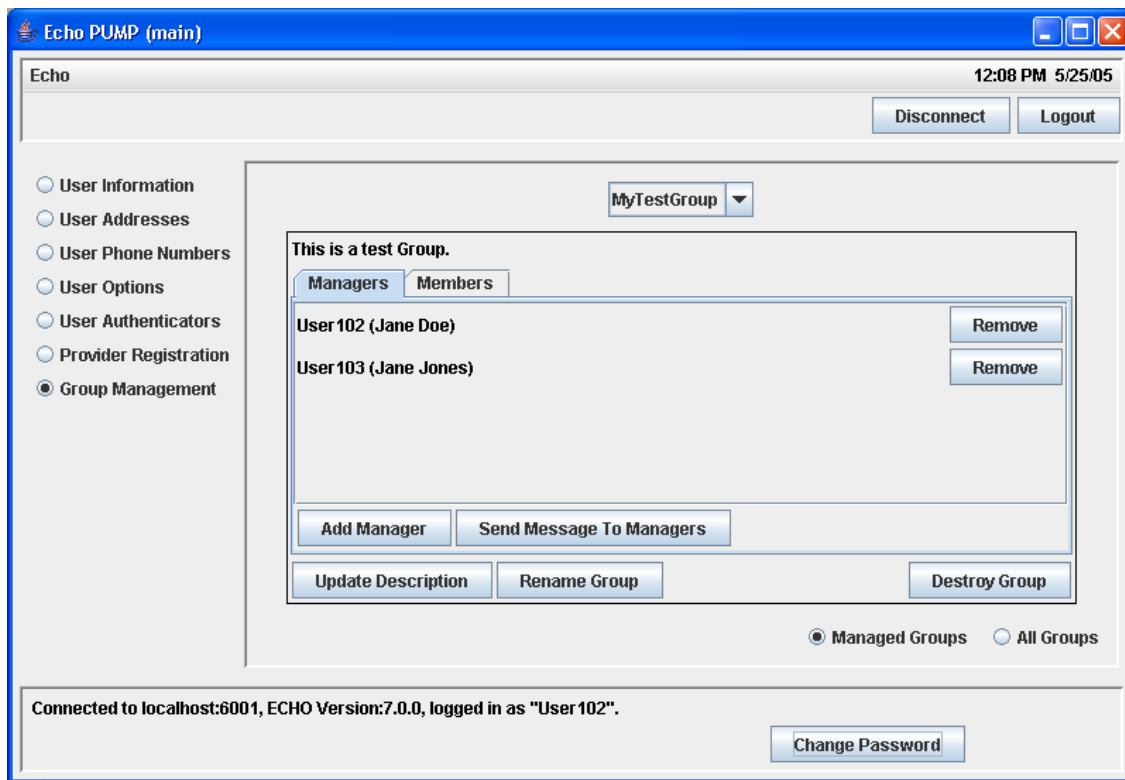


**Figure 34. Send Message To All Group Members**

To send a message to all members of a group:

1. Select the “Members” tab on the Display Group Members screen (Figure 30).
2. Select the “Send Message to Members” button. The Send Message To All Group Members screen (Figure 34) will be displayed.
3. Type the text in the message box.
4. Select “Send” to finalize the transaction.

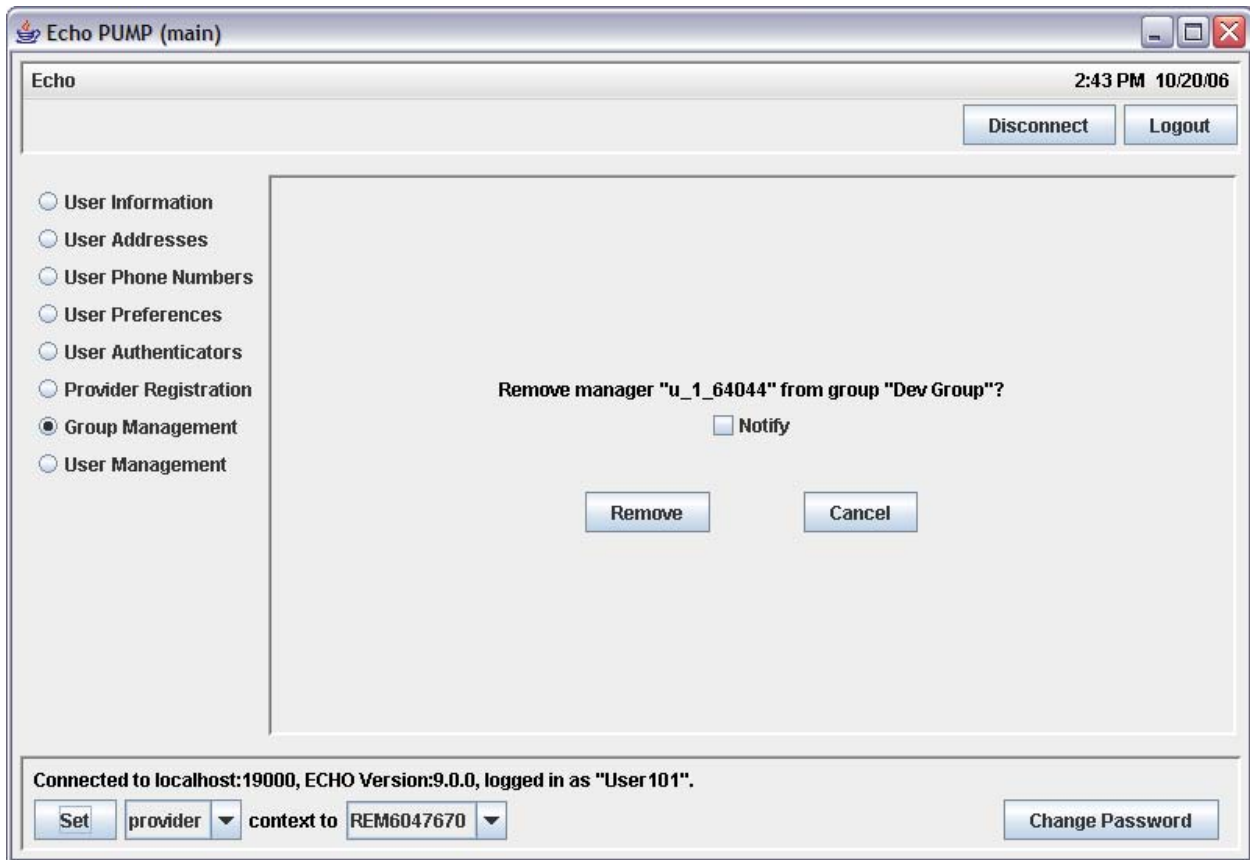
*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 35. Display All Managers Of Group**

To display all managers of a group:

- Select the “Managers” tab on the Display All Managers of Group screen (Figure 35).



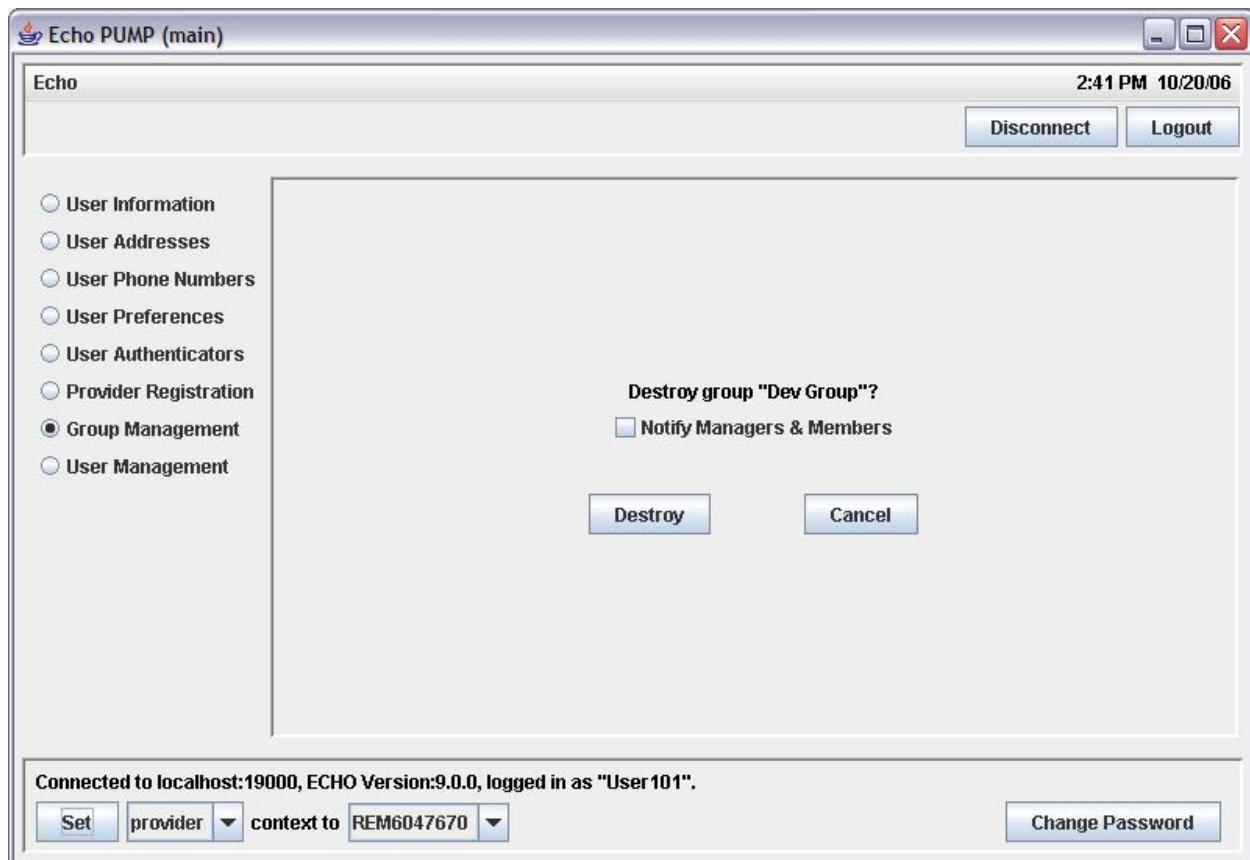
**Figure 36. Remove Manager From Group**

To remove a manager from a group:

1. Select the “Managers” tab on the Display All Managers of Group screen (Figure 35).
2. Select the “Remove” button next to the manager you would like to remove from this group. The Remove Manager From Group screen (Figure 36) prompting you to confirm the deletion of the manager will be displayed.
3. Check the “Notify” checkbox if you want the manager to be notified of the removal.
4. Select the “Remove” button and the manager will be deleted.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



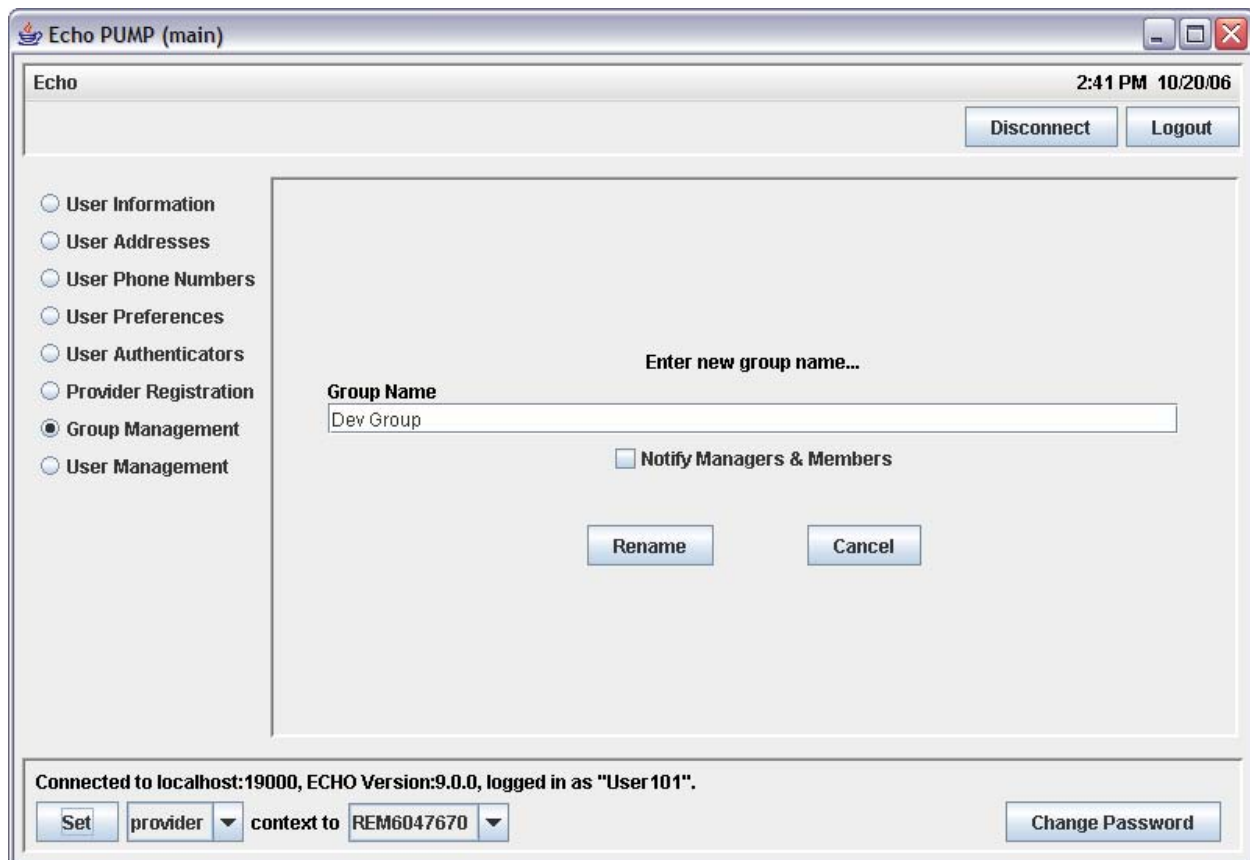


**Figure 37. Destroy Group**

To destroy a group:

1. Select the group using the pull-down menu on the Select A Group screen (Figure 29).
2. Select the “Destroy Group” button. The Destroy Group screen (Figure 37) prompting you to confirm the deletion of the group will be displayed.
3. Check the “Notify Managers & Members” checkbox if you want the all of the managers and members to be notified of the removal.
4. Select the “Destroy” button and the group will be deleted.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

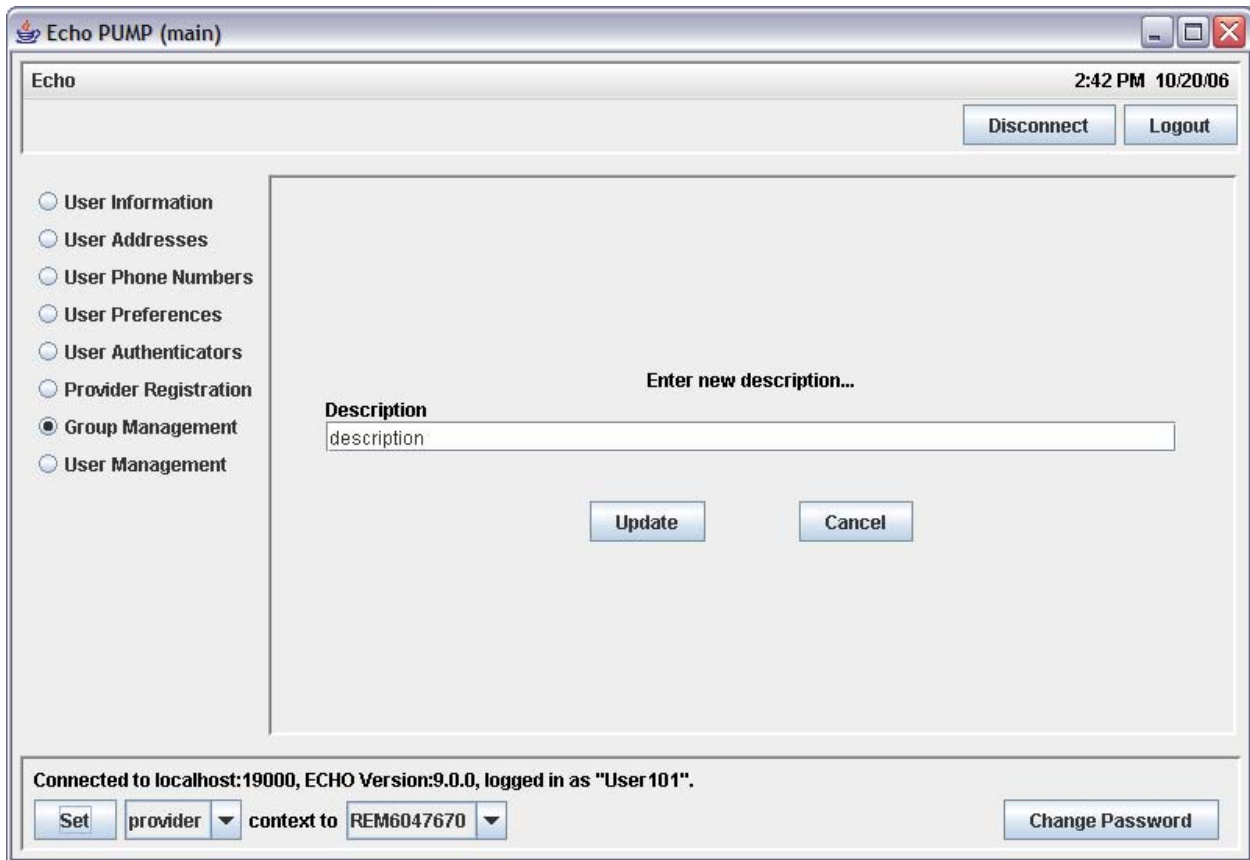


**Figure 38. Rename Group**

To rename a group:

1. Select the group using the pull-down menu on the Select A Group screen (Figure 29).
2. Select the “Rename Group” button. The Rename Group screen (Figure 38) will be displayed.
3. Type the new name for this group.
4. Check the “Notify Managers & Members” checkbox if you want the managers and members of the group to be notified of this change.
5. Select the “Rename” button and the group will be renamed.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

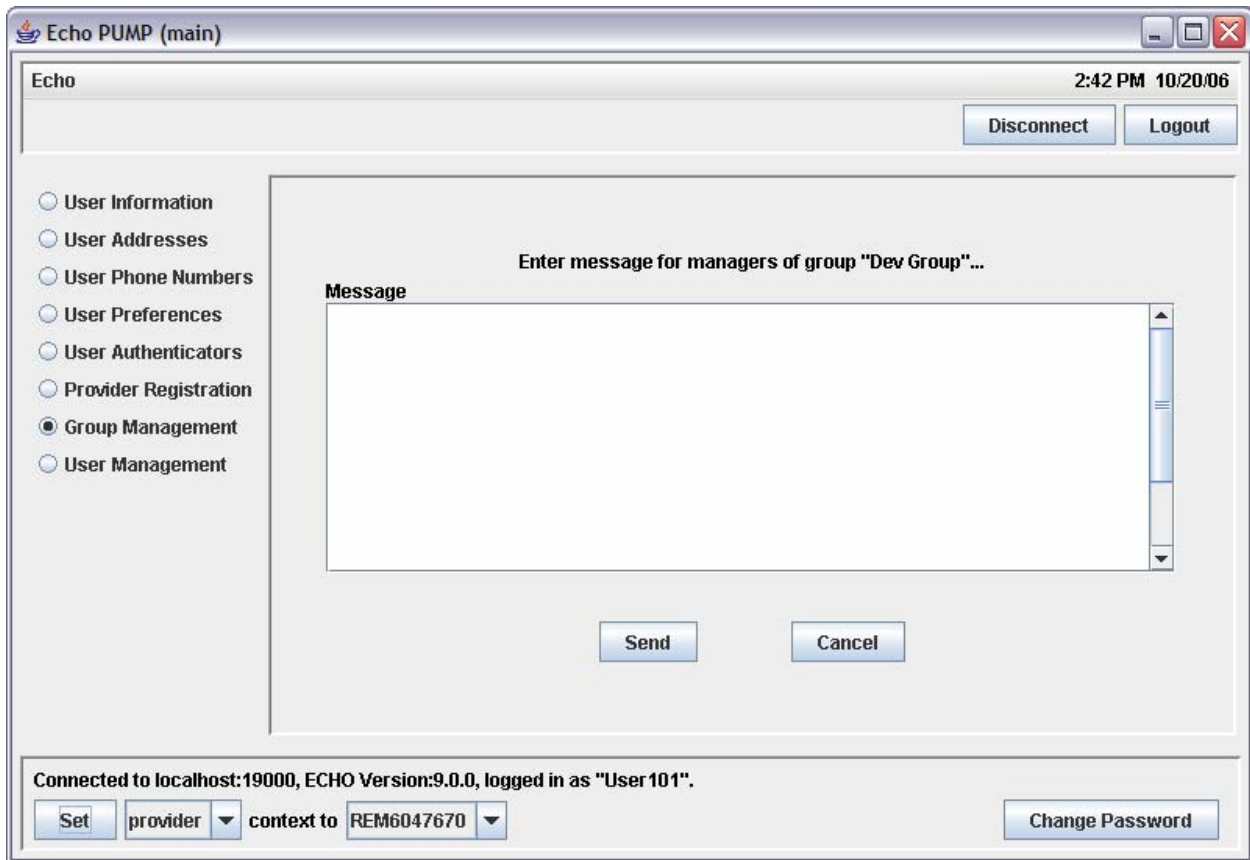


**Figure 39. Update Description Of Group**

To update description of a group:

1. Select the group using the pull-down menu on the Select A Group screen (Figure 29).
2. Select the “Update Description” button. The Update Description Of Group screen (Figure 39) will be displayed.
3. Type the updated description for this group.
4. Select the “Update” button and the description will be updated.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 40. Send Message To Managers Of Group**

To send a message to all managers of a group:

1. Select the “Managers” tab on the Display All Managers of Group screen (Figure 35).
2. Select the “Send Message to Managers Of Group” button. The Send Message To Managers Of Group screen (Figure 40) will be displayed.
3. Type the text in the message box.
4. Select “Send” to finalize the transaction.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

Echo PUMP (main)

Echo 2:42 PM 10/20/06

Disconnect Logout

☐ User Information  
☐ User Addresses  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☒ Group Management  
☐ User Management

Enter user name to add as manager of group "Dev Group"...

User Name

☐ Notify

Add Cancel

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

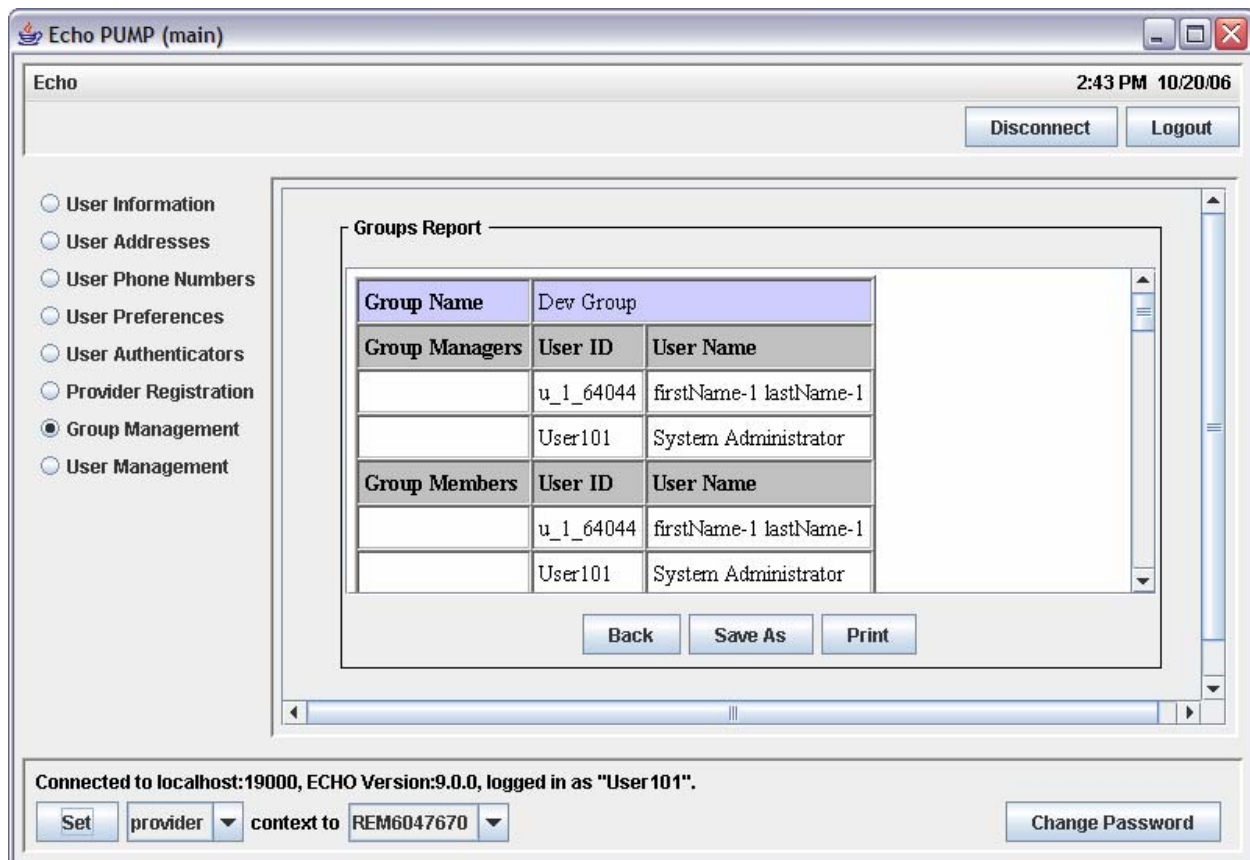
Set provider context to REM6047670 Change Password

**Figure 41. Add New Manager**

To add a member to the list of managers for a group:

1. Select the "Managers" tab on the Display All Managers of Group screen (Figure 35).
2. Select the "Add Manager" button. The Add New Manager screen (Figure 41) will be displayed.
3. Enter the user name of the manager to be added.
6. Check the "Notify" checkbox if you want the manager to be notified of being added to the group.
7. Select the "Add" button and the manager will be added.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*



**Figure 42 Generate Group Report**

To generate a report of a group listing members and managers:

1. Click on the "Generate Report" button on the Generate Group Report screen (Figure 29. Select A Group).
2. The Generate Group Report screen (Figure 42 Generate Group Report) will be displayed.
3. Use "Print" button to send this report to a printer attached to the user's desktop or click on the "Save As" button to save the file local storage.
4. Click on "Back" to go to the previous Group management screen (Figure 29. Select A Group).

*Note: The "Generate Report" button is visible only for users with either an administrator or provider roles.*

## **5 PROVIDERS**

### **5.1 Becoming a Provider**

To submit an application to become a data or services provider:

1. Select the "Provider Registration" button on the navigator panel from the Display User Information screen (Figure 8). The Provider Registration screen (Figure 43) will be displayed.
2. Fill in all the input fields and select the "Register" button. You will receive a message indicating successful registration and a provider ID number. Be sure to record the provider ID number.

Echo PUMP (main) 2:50 PM 10/20/06

Disconnect Logout

☐ User Information  
☐ User Addresses  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☒ Provider Registration  
☐ Group Management  
☐ User Management

**Organization**

**Description of Holdings**

**Description of Services**

**Additional Information**

Provider Type **DATA** **SERVICE** Discovery URL (separate multiple entries w/ ";")

**Contact**

First Name Last Name  
 Role Email Address

**Mailing Address**

☒ US Format

**Address**

City State Zip Code Country

**Special Instructions**

**Phone Number**

Phone GUID  
 Phone Type  
 BUSINESS  
 Phone Number

Register

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101".

Set provider context to GSFCECS Change Password

Figure 43. Provider Registration



## 5.2 Set Provider Context

To perform any data management tasks, you must login as a user with provider context privileges. To set the provider context to a specific provider:

1. Select the "provider" option from the first pull-down menu located at the bottom of the Set Provider Context screen (Figure 44). Select the provider you want from the second pull-down menu.
2. Select the "Set" button on the bottom left of the screen. The Display Provider Context screen (Figure 45) will be displayed. The status bar will be updated and the navigator will have options for data management that only providers can perform.

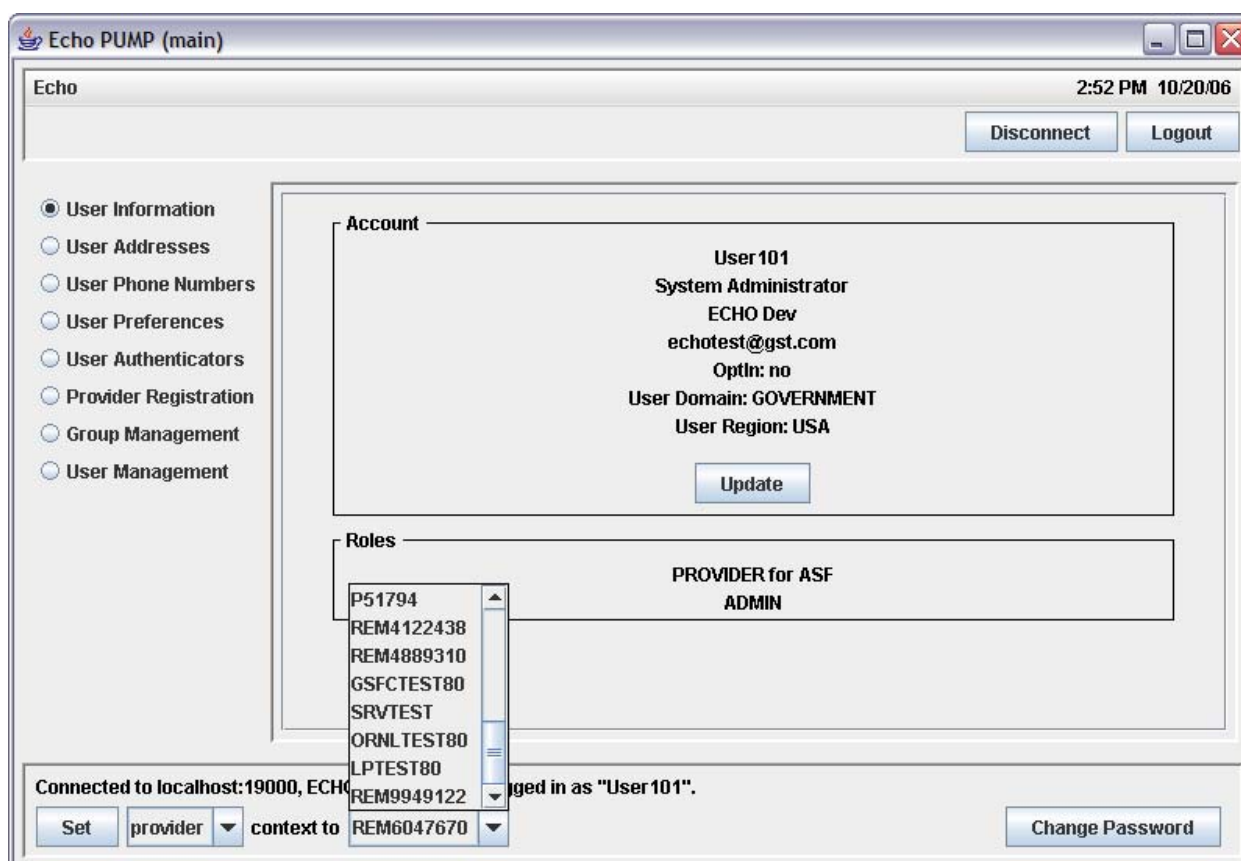
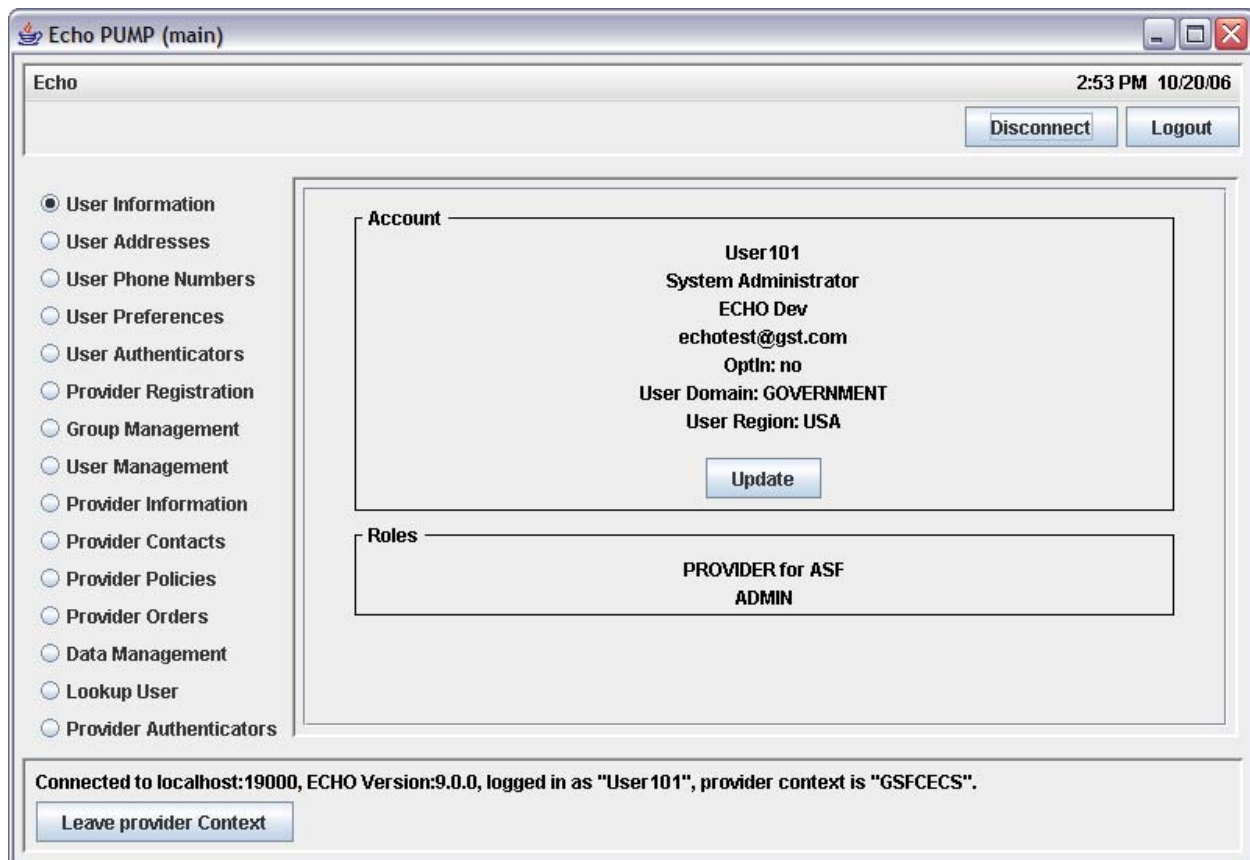


Figure 44. Set Provider Context



**Figure 45. Display Provider Context**

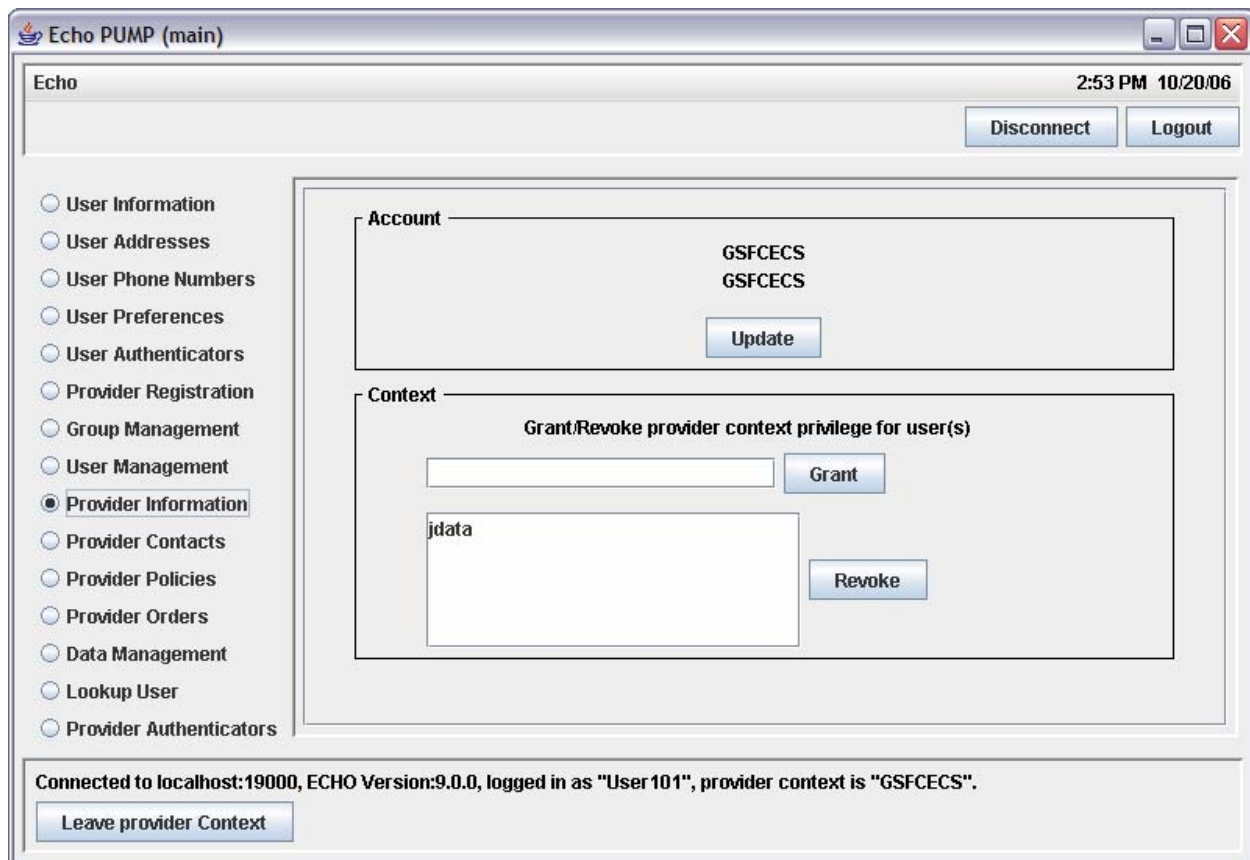
To leave the provider context:

- Select the "Leave provider Context" button from the Display Provider Context screen (Figure 45).

### 5.3 Provider Information

To view the provider information:

- Select the "Provider Information" button on the navigator panel from the Display Provider Context screen (Figure 45). The Initial Provider Information screen (Figure 46) will be displayed.

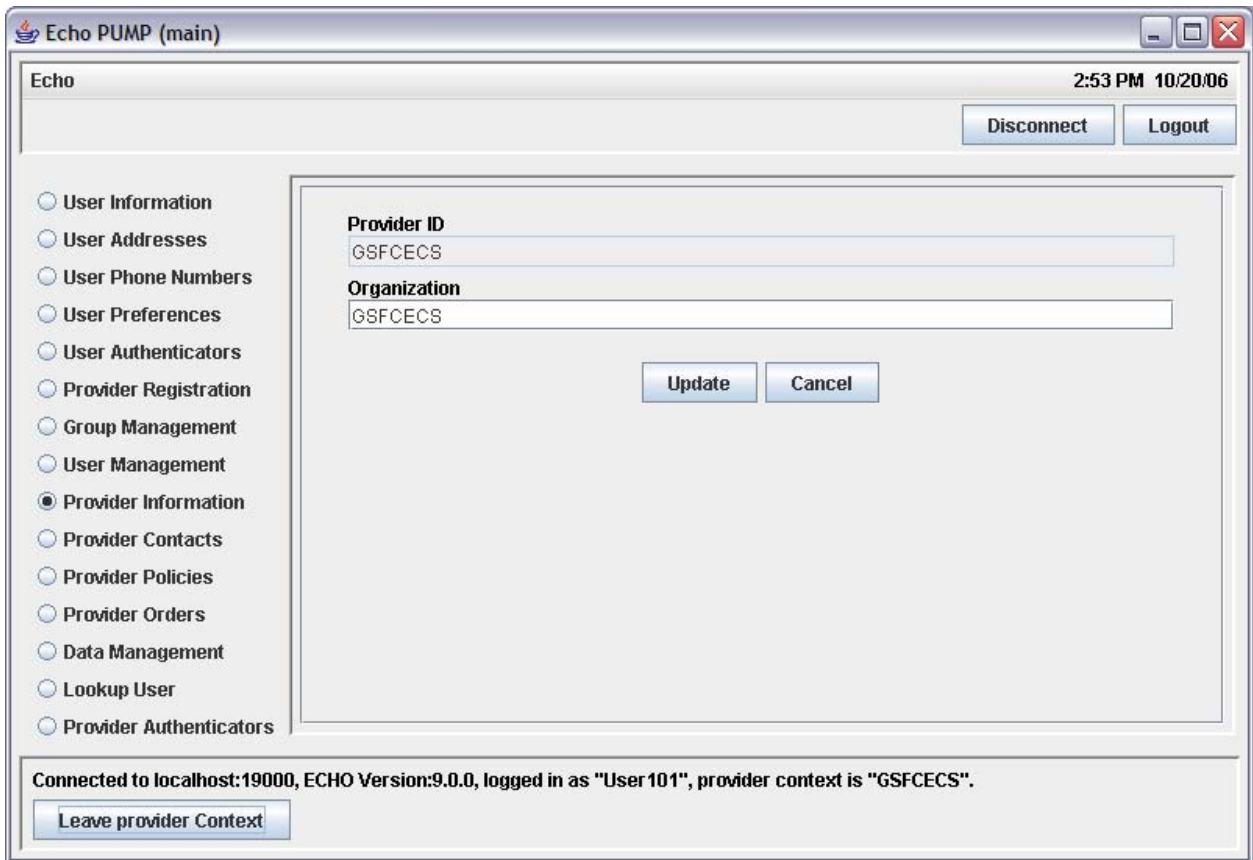


**Figure 46. Initial Provider Information**

To change the information:

1. Select the “Update” button on the Initial Provider Information screen (Figure 46). The Edit Provider Information screen (Figure 47) will be displayed.
2. Fill in the Organization field.
3. Select the “Update” button for this change to take effect. You will receive a message indicating a successful update. The page will reload with the new values displayed.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 47. Edit Provider Information**

To grant context privilege to a user:

1. Enter the user name on the Initial Provider Information screen (Figure 46).
2. Select the “Grant” button to grant context privilege to the user. The Grant Provider Access screen (Figure 48) prompting you to confirm the grant will be displayed.
3. Select the “Grant” button and the user will be granted context privilege.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

To revoke context privilege from a user:

1. Select one or more users on the Initial Provider Information screen (Figure 46).
2. Select the “Revoke” button to revoke context privilege from the user(s). The Revoke Provider Access screen (Figure 49) prompting you to confirm the revoke will be displayed.
3. Select the “Revoke” button and the context privilege will be revoked from the user(s).

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



Figure 48. Grant Provider Access



**Figure 49. Revoke Provider Access**

## 5.4 Provider Contacts

To view the provider contact information:

1. Select the "Provider Contacts" button on the navigator panel from the Display Provider Context screen (Figure 45). The Display Provider Contacts screen (Figure 50) will be displayed.
2. Select the appropriate contact using the pull-down menu. The screen will display the selected contact's information.



**Figure 50. Display Provider Contacts**

**Echo PUMP (main)**

Echo 2:54 PM 10/20/06

- ☐ User Information
- ☐ User Addresses
- ☐ User Phone Numbers
- ☐ User Preferences
- ☐ User Authenticators
- ☐ Provider Registration
- ☐ Group Management
- ☐ User Management
- ☐ Provider Information
- ☒ **Provider Contacts**
- ☐ Provider Policies
- ☐ Provider Orders
- ☐ Data Management
- ☐ Lookup User
- ☐ Provider Authenticators

**First Name**  **Last Name**

**Role**  **Email Address**

**Mailing Address**  ☒ **US Format**

**Address**

**City**  **State**  **Zip Code**  **Country**

**Special Instructions**

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101", provider context is "GSFCECS".

**Figure 51. Add Provider Contacts**

To add new contact information:

1. Select the appropriate contact using the pull-down menu on the Display Provider Contacts screen (Figure 50).
2. Select the "Add" button. The Add Provider Contacts screen (Figure 51) will be displayed.
3. Fill in the fields and select the "Add" button. The screen will display the new information.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

To change the contact information:

1. Select the "Update" button on the Display Provider Contacts screen (Figure 50). The Edit Provider Contacts screen (Figure 52) will be displayed.
2. Fill in the fields and select the "Update" button. The screen will display the updated values.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

To remove the contact information:

1. Select the "Delete" button on the Display Provider Contacts screen (Figure 50). The Delete Provider's Contact Information screen (Figure 53) prompting you to confirm the deletion will be displayed.



2. Select the “Delete” button and the contact will be deleted.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

**Echo PUMP (main)**

**Echo** 2:55 PM 10/20/06

Disconnect Logout

- ☐ User Information
- ☐ User Addresses
- ☐ User Phone Numbers
- ☐ User Preferences
- ☐ User Authenticators
- ☐ Provider Registration
- ☐ Group Management
- ☐ User Management
- ☐ Provider Information
- ☒ **Provider Contacts**
- ☐ Provider Policies
- ☐ Provider Orders
- ☐ Data Management
- ☐ Lookup User
- ☐ Provider Authenticators

**First Name** Bob **Last Name** Smith

**Role** General Contact **Email Address** echotest@gst.com

**Mailing Address** ☒ US Format

**Address** 123 Fake St.

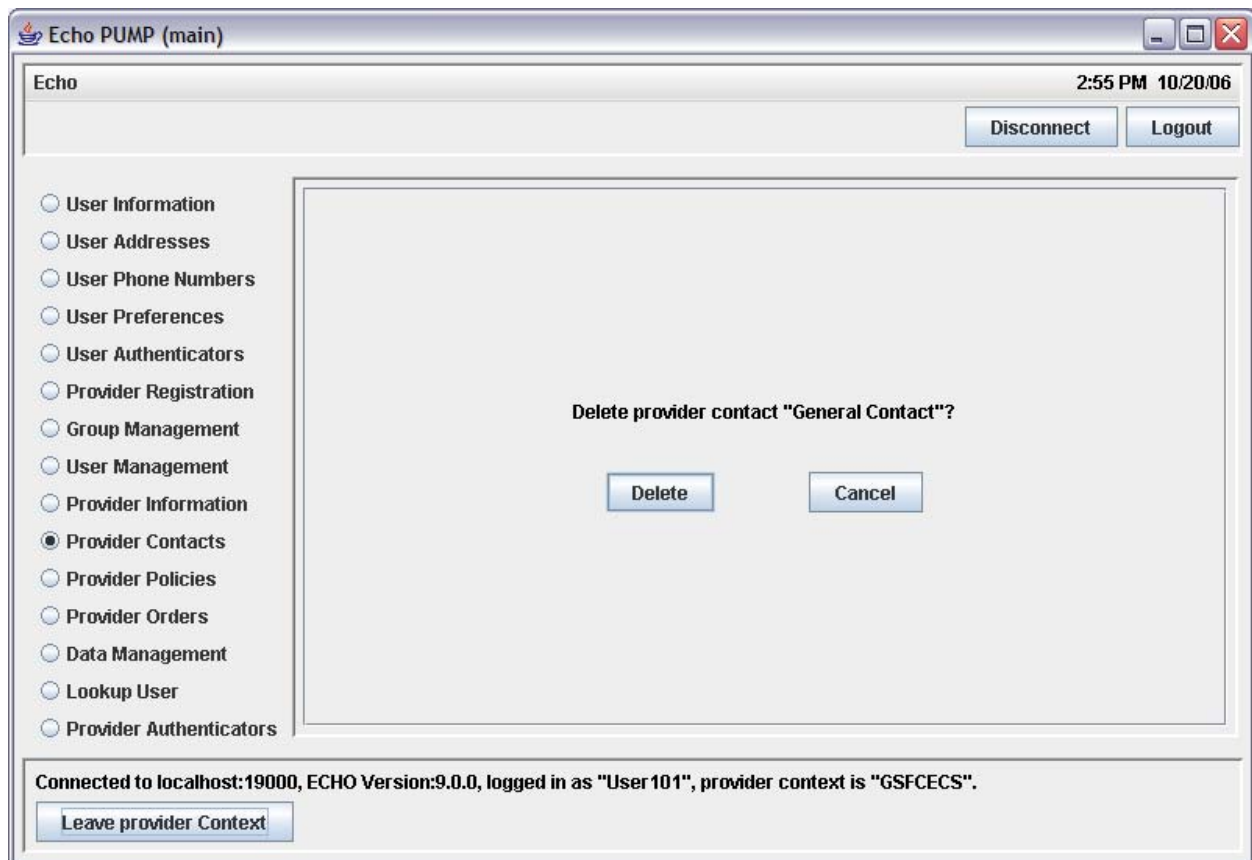
**City** Greenbelt **State** MD **Zip Code** 20904 **Country** USA

**Special Instructions** null

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101", provider context is "GSFCECS".

Leave provider Context

**Figure 52. Edit Provider Contacts**



**Figure 53. Delete Provider's Contact Information**

## 5.5 Provider Policies

To view the policies:

- Select the "Provider Policies" button on the navigator panel from the Display Provider Context screen (Figure 45). The Display Provider Policies screen (Figure 54) will be displayed.

Echo PUMP (main) 2:55 PM 10/20/06

Disconnect Logout

☐ User Information  
☐ User Addresses  
☐ User Phone Numbers  
☐ User Preferences  
☐ User Authenticators  
☐ Provider Registration  
☐ Group Management  
☐ User Management  
☐ Provider Information  
☐ Provider Contacts  
☒ **Provider Policies**  
☐ Provider Orders  
☐ Data Management  
☐ Lookup User  
☐ Provider Authenticators

**All Policies**

**Retries**

Retry Attempts Retry Wait (in seconds)

**Supported Transactions**

☐ Submit ☐ Quote ☐ Cancel

**Order Catalog Items**

☐ Order Supports Duplicate CatalogItems

**Routing**

End Point Type

LEGACY\_ORDER\_V8

**SSL**

Certificate

Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101", provider context is "GSFCECS".

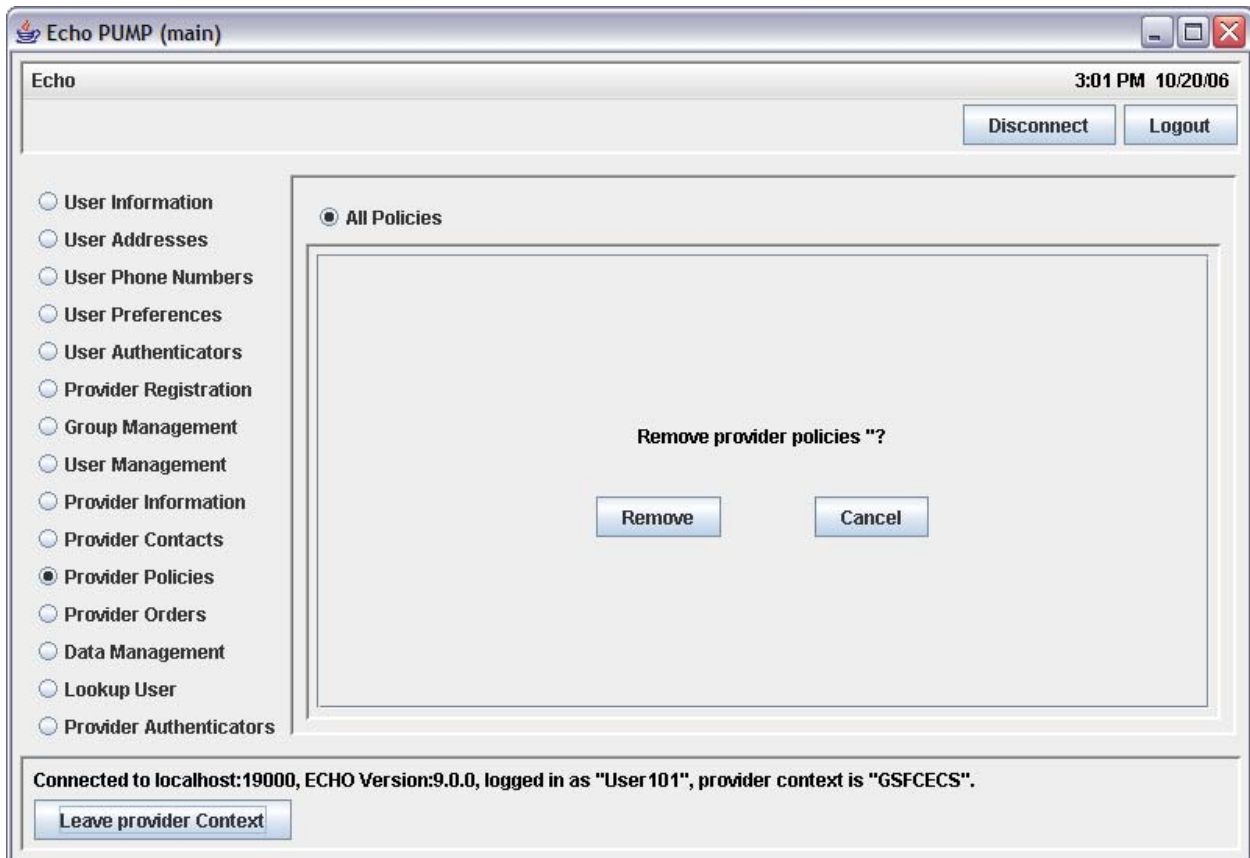
Leave provider Context

**Figure 54. Display Provider Policies**

To set the policies:

1. Fill in the fields appropriate for the policy . These include: Retries, Supported Transactions, Routing, SSL and Custom Policies in XML.
2. You can clear existing values for the policy by selecting the “Clear” button.
3. Select the “Set Policies” button for these changes to take effect. The page will reload with the new values displayed.
4. The set Provider Policies screen (Figure 55) will be displayed.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 55. Edit Provider Policies**

To remove the policies:

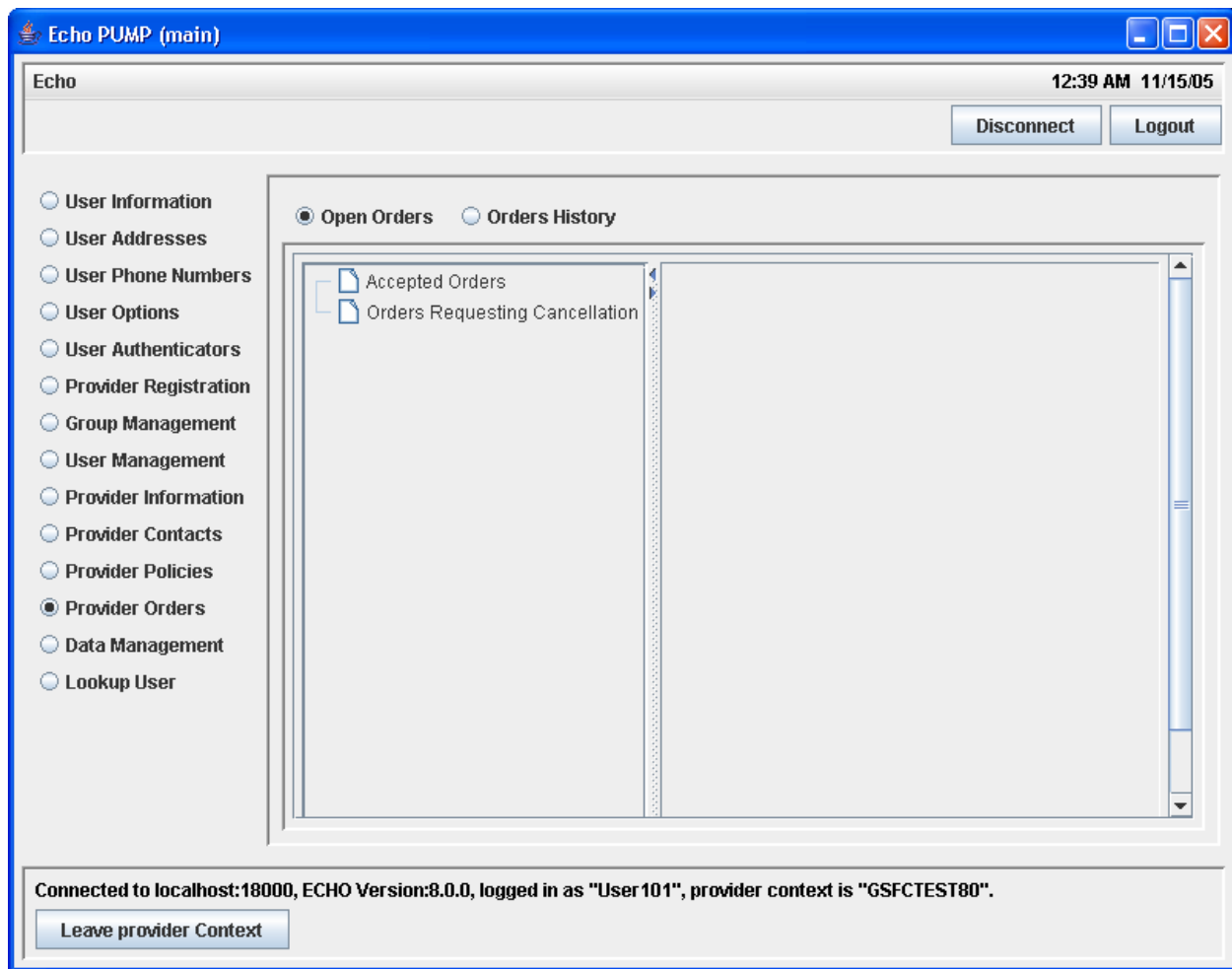
1. Select the "Provider Policies" button on the navigator panel from the Display Provider Context screen (Figure 45). The Display Provider Policies screen (Figure 54) will be displayed.
2. Select the "Remove Policies" button. The Remove Provider Policies screen (Figure 55) will be displayed.
3. The page will reload with the no values set.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

## 5.6 Provider Orders

To view provider orders:

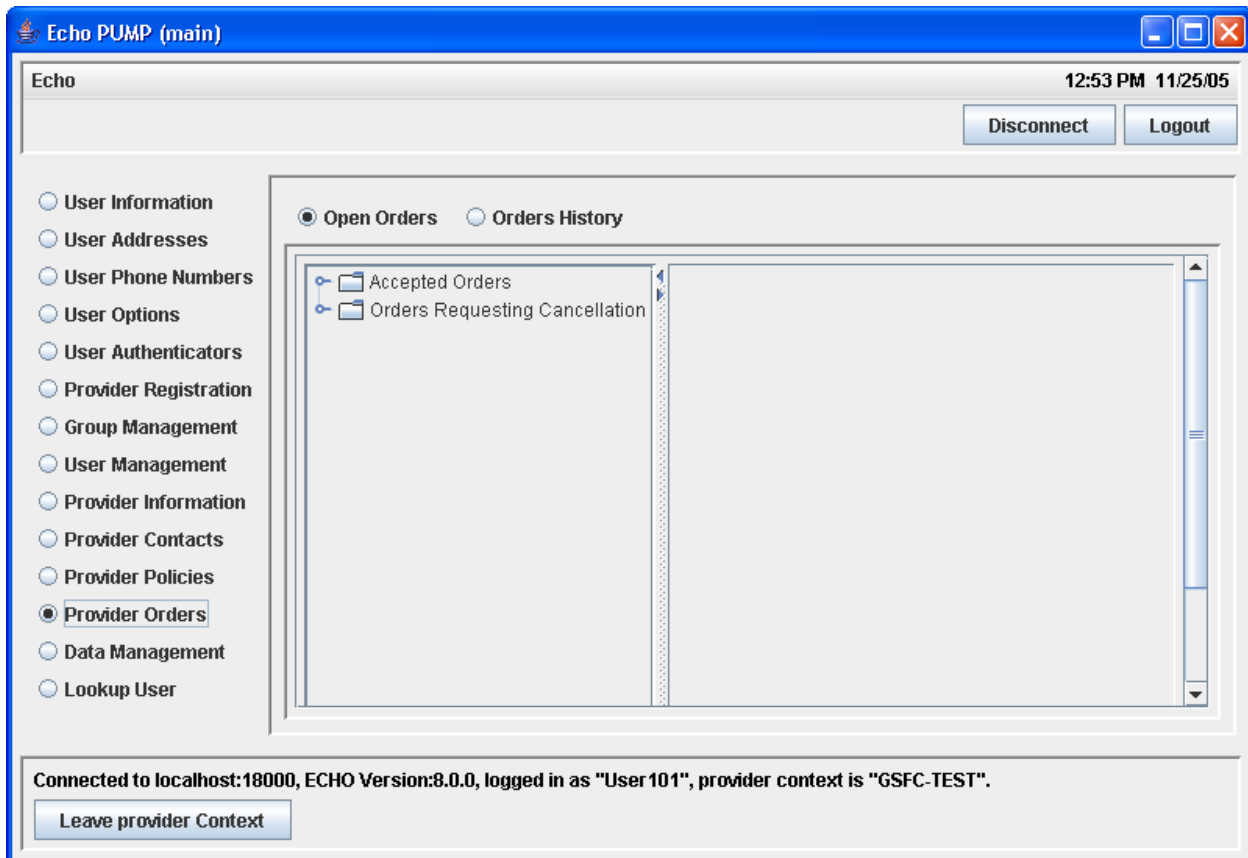
- Select the "Provider Orders" button on the navigator panel from the Display Provider Context screen (Figure 45). The Display Provider Orders screen (Figure 56) will be displayed. Providers can manage open orders or check the history of any order.



**Figure 56. Display Provider Orders**

To manage open orders:

- Select the “Open Order” button on the Display Provider Orders screen (Figure 56). The Open Orders screen (Figure 57) will be displayed. Providers can manage accepted orders or orders requesting cancellation.



**Figure 57. Open Orders**

To manage accepted orders:

1. Select the Accepted Orders on the Open Orders screen (Figure 57). The Accepted Orders screen (Figure 58) will be displayed listing all of the accepted order ids.

*Note: Select the “right” mouse button while inside the list of orders to display the “Sort by Order Number” or “Refresh Records” options. The Sort/Refresh Orders List screen (Figure 64) will be displayed.*

2. Select the appropriate order id. The Manage Accepted Orders screen (Figure 59) will be displayed.
3. Select the appropriate action “Update Order Status” or “Cancel Order” or “Close Order”. The Status Confirmation screen (Figure 60) will be displayed.
4. The status message must be entered before completing the transaction. Select the “Yes, please” button to confirm the transaction.

*Note: You can exit the transaction at any time by selecting the “No, discard” button.*

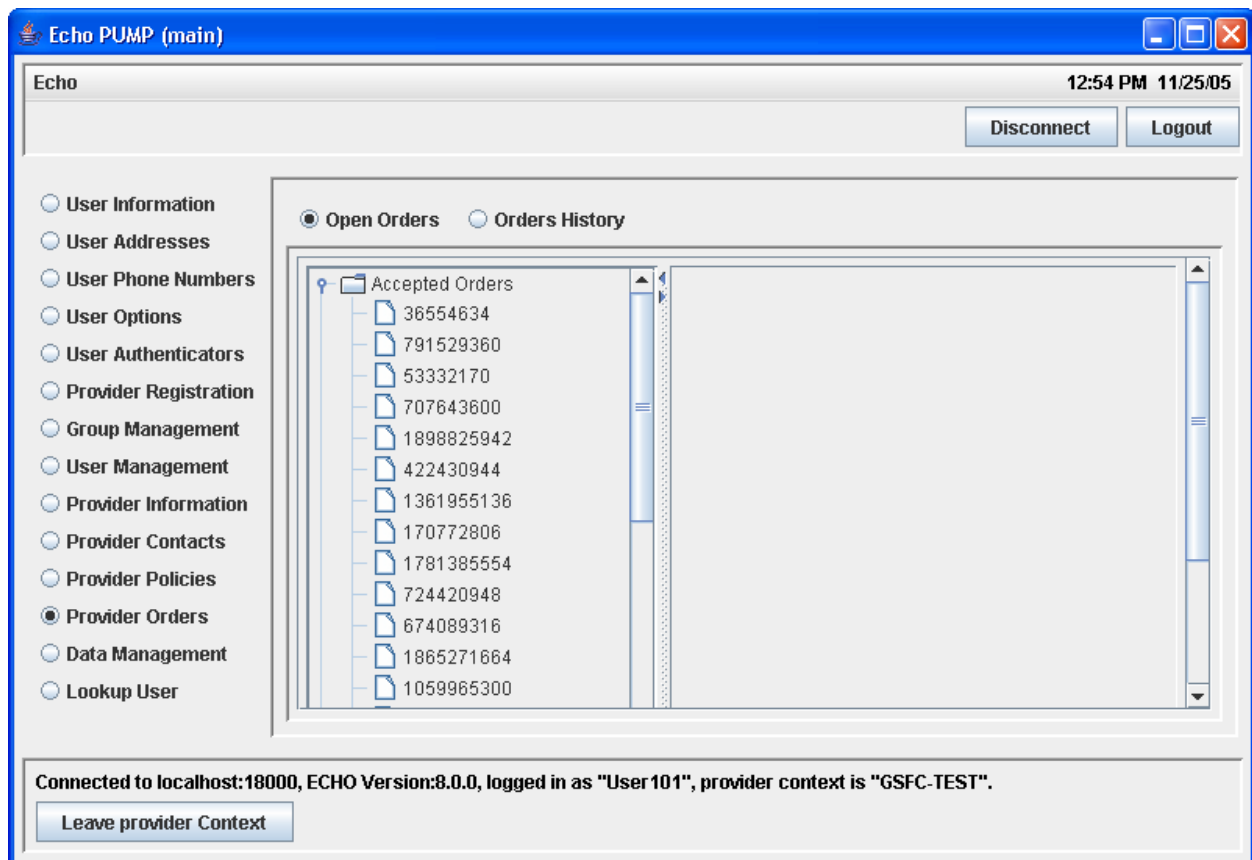


Figure 58. Accepted Orders

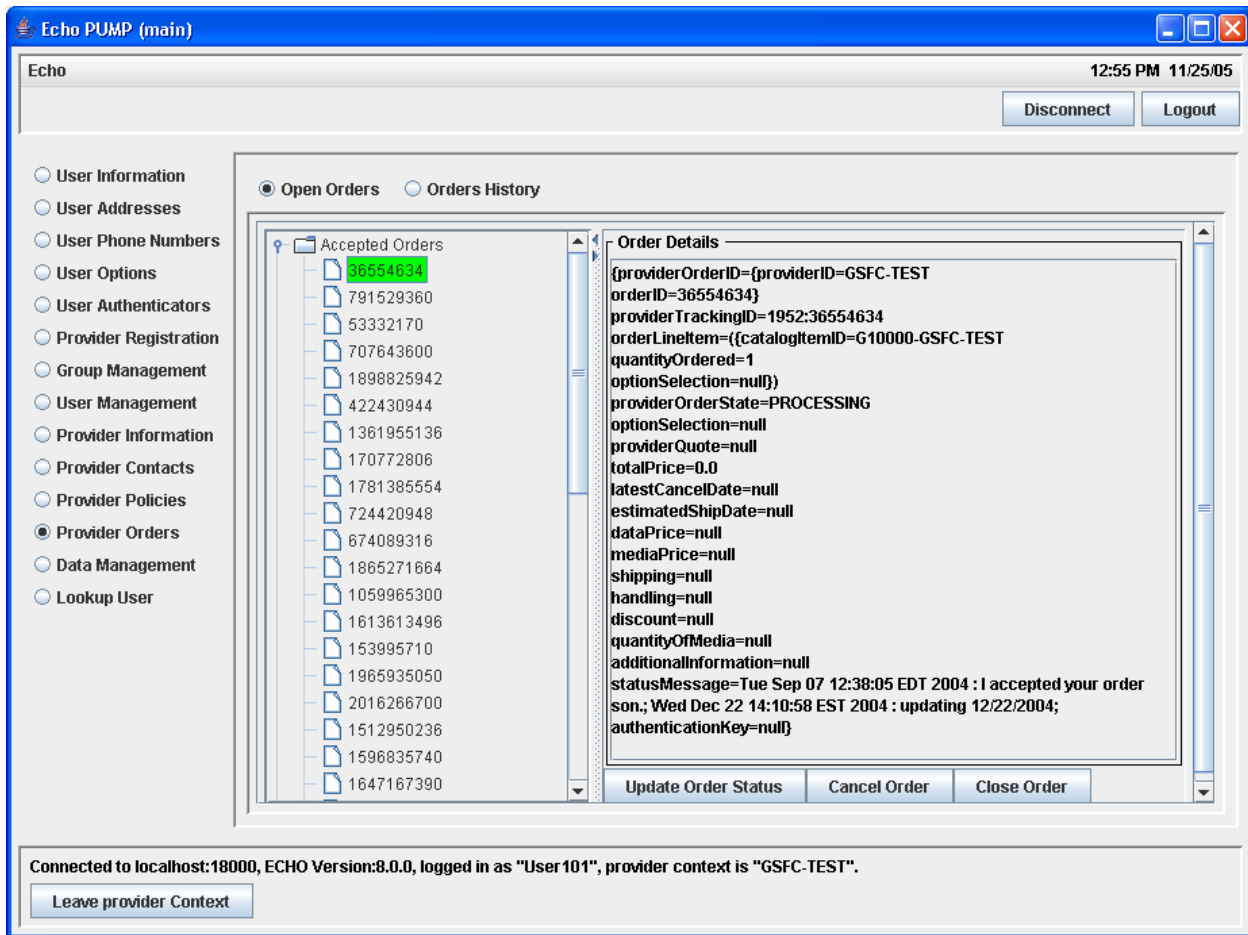


Figure 59. Manage Accepted Orders

To manage orders requesting cancellation:

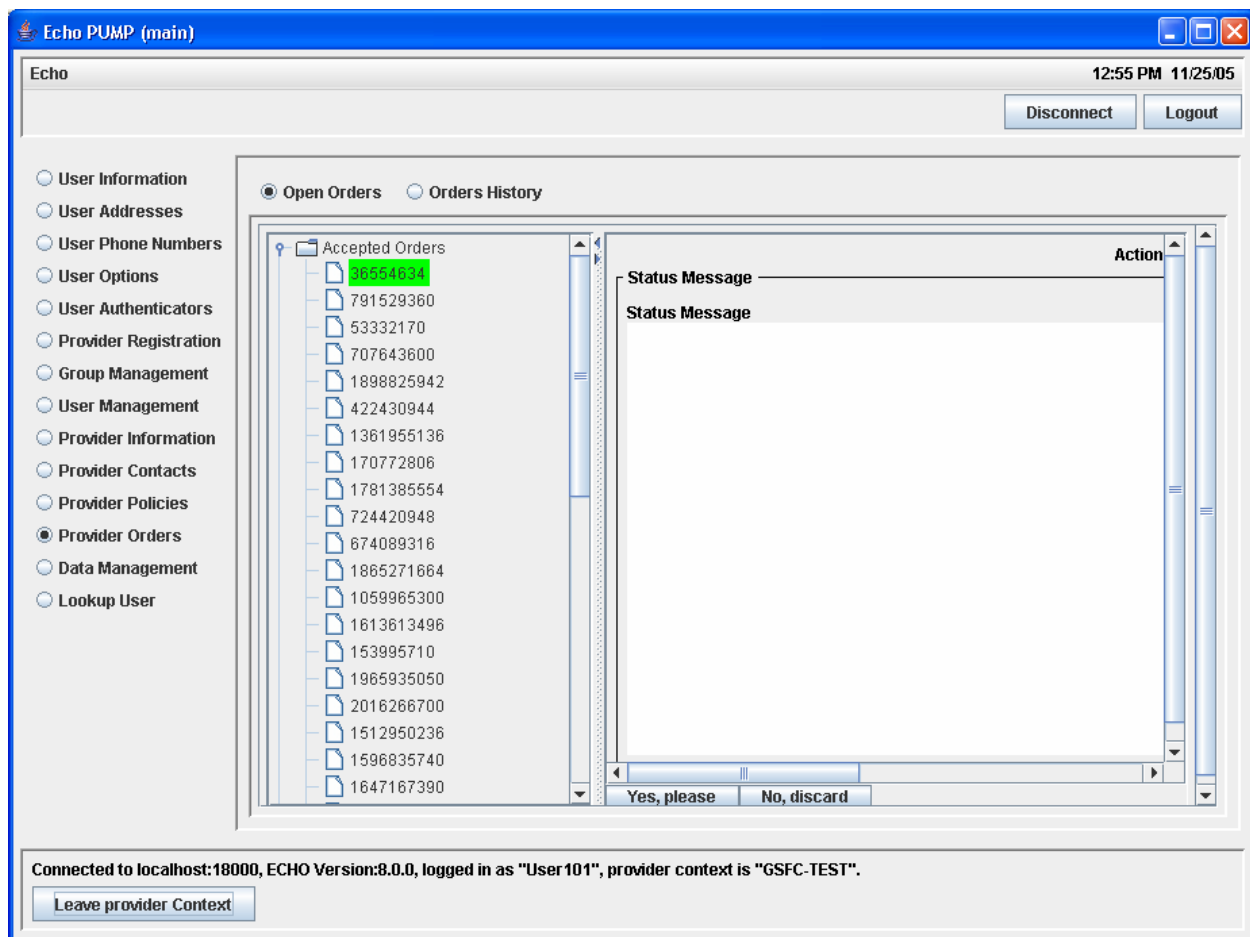
1. Select the Orders Requesting Cancellation on the Open Orders screen (Figure 57). The Orders Requesting Cancellation screen (Figure 61) will be displayed listing all of the ids for orders requesting cancellation.

*Note: Select the “right” mouse button while inside the list of orders to display the “Sort by Order Number” or “Refresh Records” options. The Sort/Refresh Orders List screen (Figure 64) will be displayed.*

2. Select the appropriate order id. The Manage Orders Requesting Cancellation screen (Figure 62) will be displayed.
3. Select the appropriate action “Cancel Order” or “Reject Cancellation Request” or “Update Order”. The Status Confirmation screen (Figure 60) will be displayed.
4. The status message must be entered before completing the transaction. Select the “Yes, please” button to confirm the transaction.

*Note: You can exit the transaction at any time by selecting the “No, discard” button.*





**Figure 60. Status Confirmation**

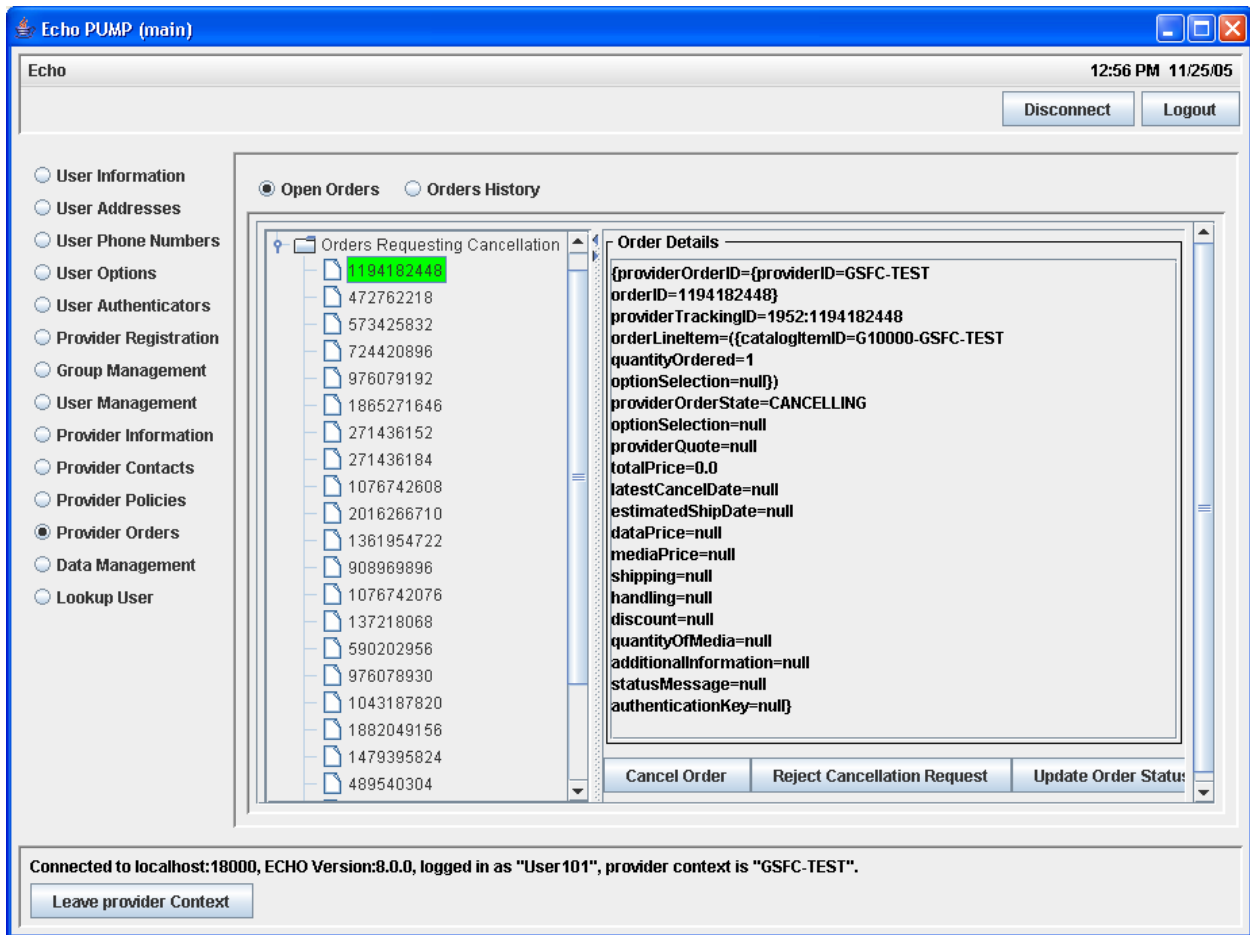
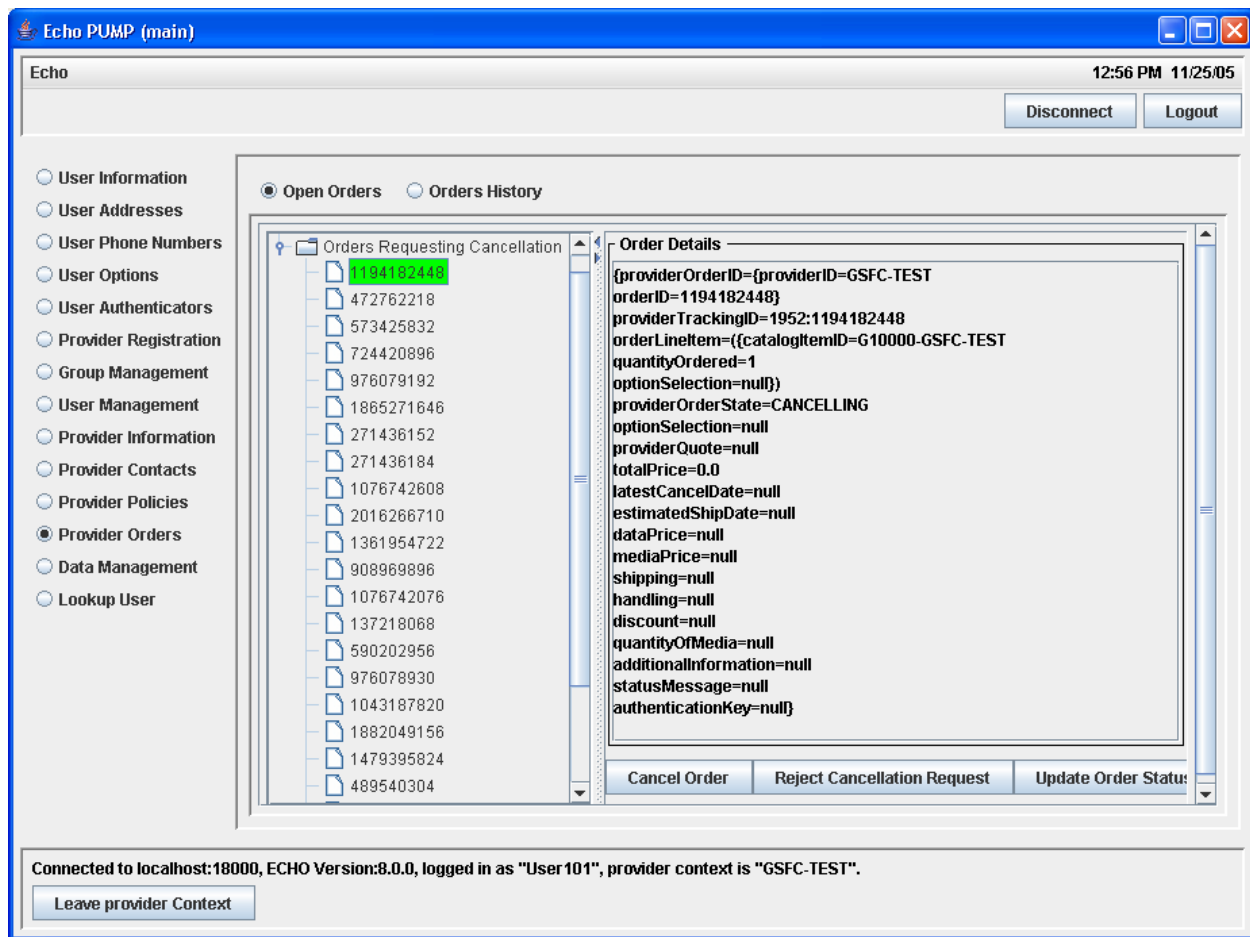


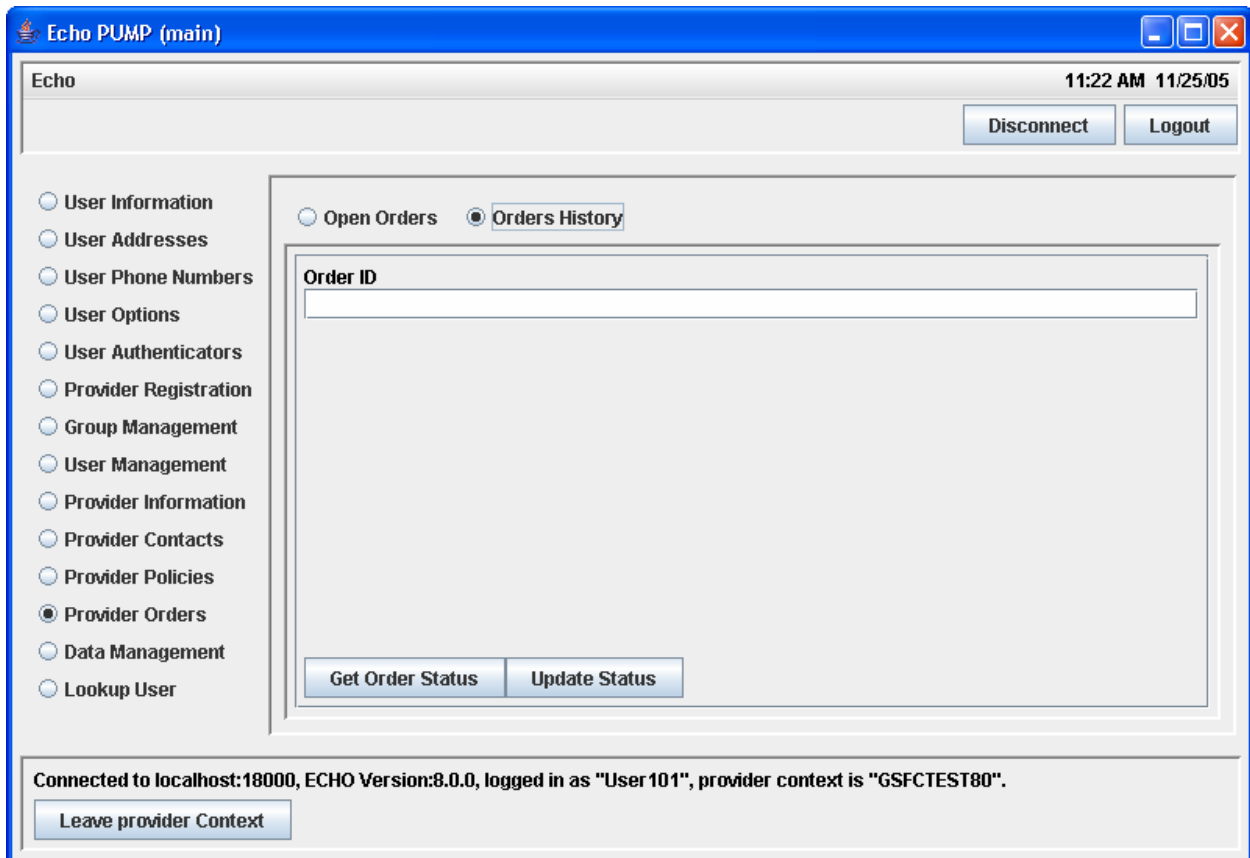
Figure 61. Orders Requesting Cancellation



**Figure 62. Manage Orders Requesting Cancellation**

To check history of orders:

- Select the "Orders History" button on the Display Provider Orders screen (Figure 56). The Display Orders History screen (Figure 63) will be displayed. Providers can view the details of an order or update the status of an order.



**Figure 63. Display Order History**

To view details of an order:

1. Select the “Orders History” button on the Display Provider Orders screen (Figure 56). The Display Orders History screen (Figure 63) will be displayed.
2. Enter the order id of the order. Select the “Get Order Status” button. The page will reload with the details of the order displayed.

To update the status of an order:

1. Select the “Orders History” button on the Display Provider Orders screen (Figure 56). The Display Orders History screen (Figure 63) will be displayed.
2. Enter the order id of the order.
3. Select the “Update Order Status” button. The Status Confirmation screen (Figure 60) will be displayed.
4. The status message must be entered before completing the transaction. Select the “Yes, please” button to confirm the transaction.

*Note: You can exit the transaction at any time by selecting the “No, discard” button.*

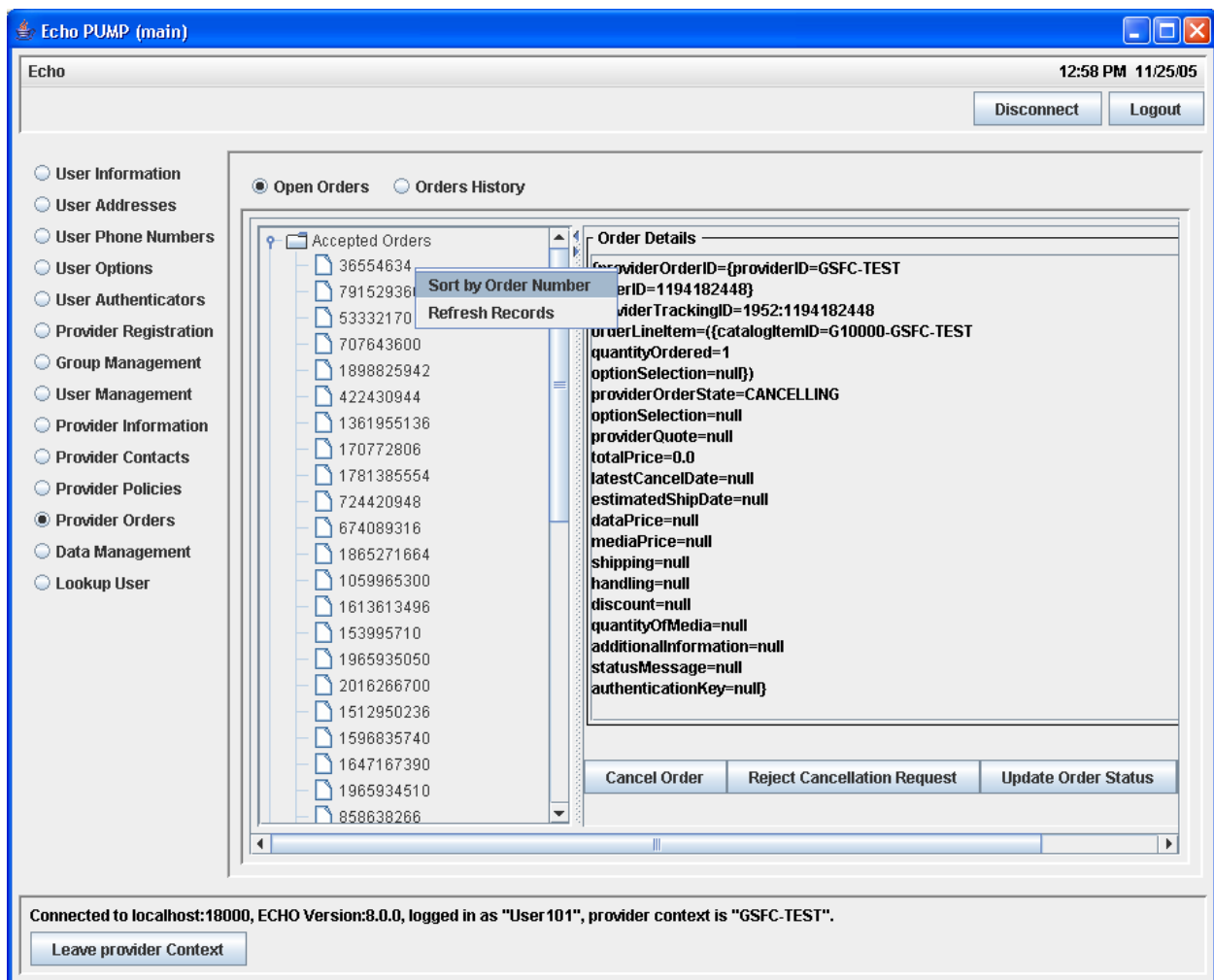


Figure 64. Sort/Refresh Orders List

## 6 DATA MANAGEMENT

Providers use the Data Management Service to control access to metadata. This service restricts or permits users of the ECHO system from viewing, browsing, and ordering data. Providers manage data by the use of “conditions,” which specify metadata characteristics.

A rule is formed with a Condition, Comparator, Action, and Data Holding. The rule can be either restriction or permission. If a rule is a restriction, it applies to the entire ECHO user community. If a rule is a permission, it applies only to members of the group specified.

For example, the rule "restrict viewing of all MODIS metadata less than 30 days old" is composed of the following:

Condition: 30 days old;

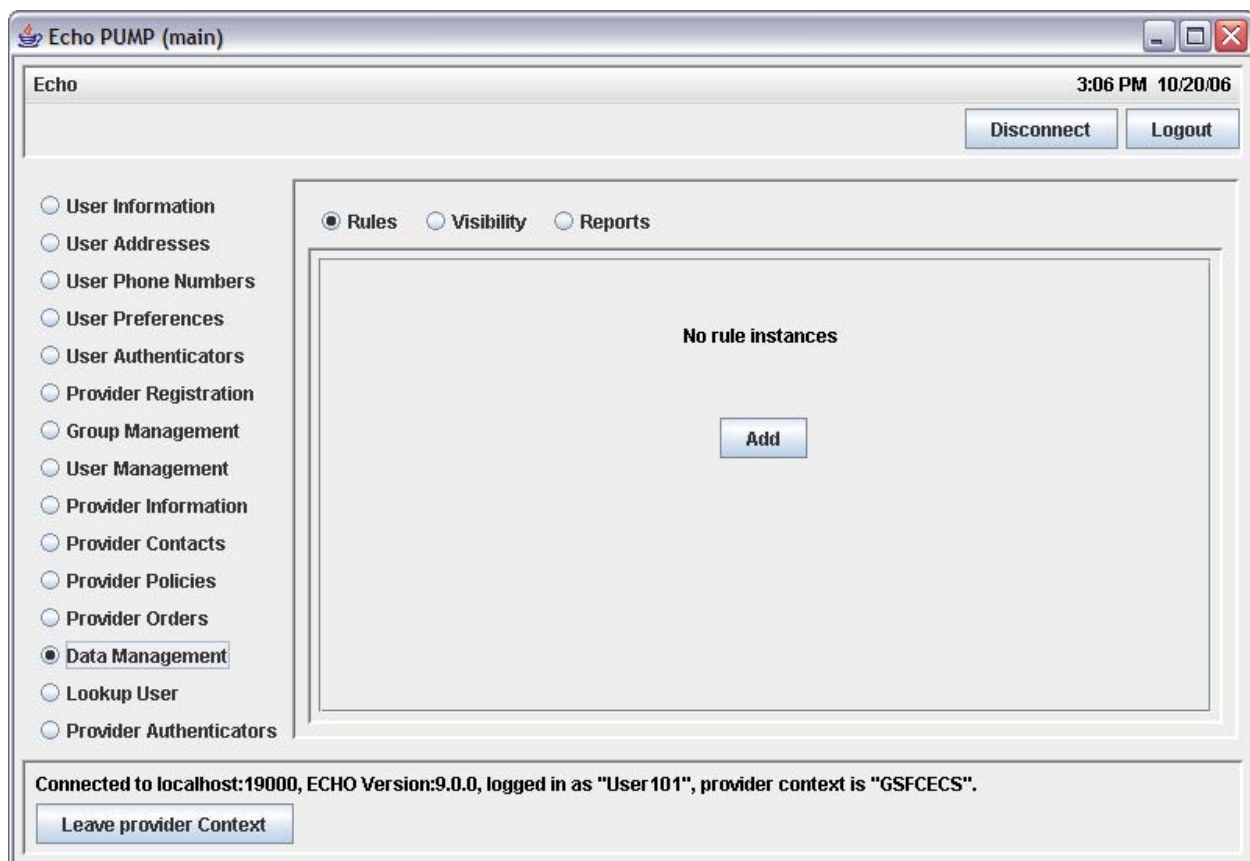
Comparator: less than;

Action: view;

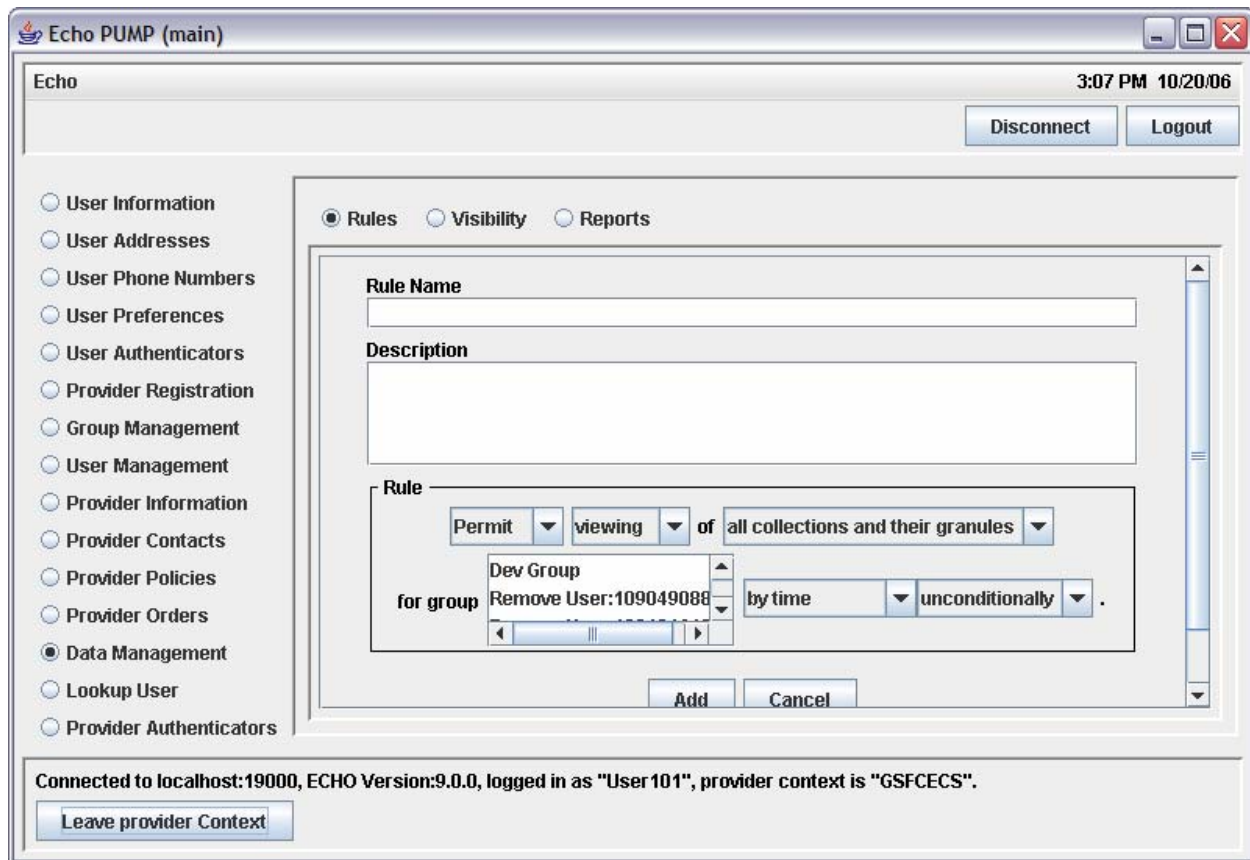
Data Holding: instrument MODIS.

To toggle between Rules, Conditions and Visibility:

1. Select the “Data Management” button on the navigator panel from the Display Provider Context screen (Figure 45). The Data Management Selection screen (Figure 65) will be displayed.
2. Select the “Rules” or “Conditions” or “Visibility” radio button on the Data Management Selection screen (Figure 65).



**Figure 65. Data Management Selection**



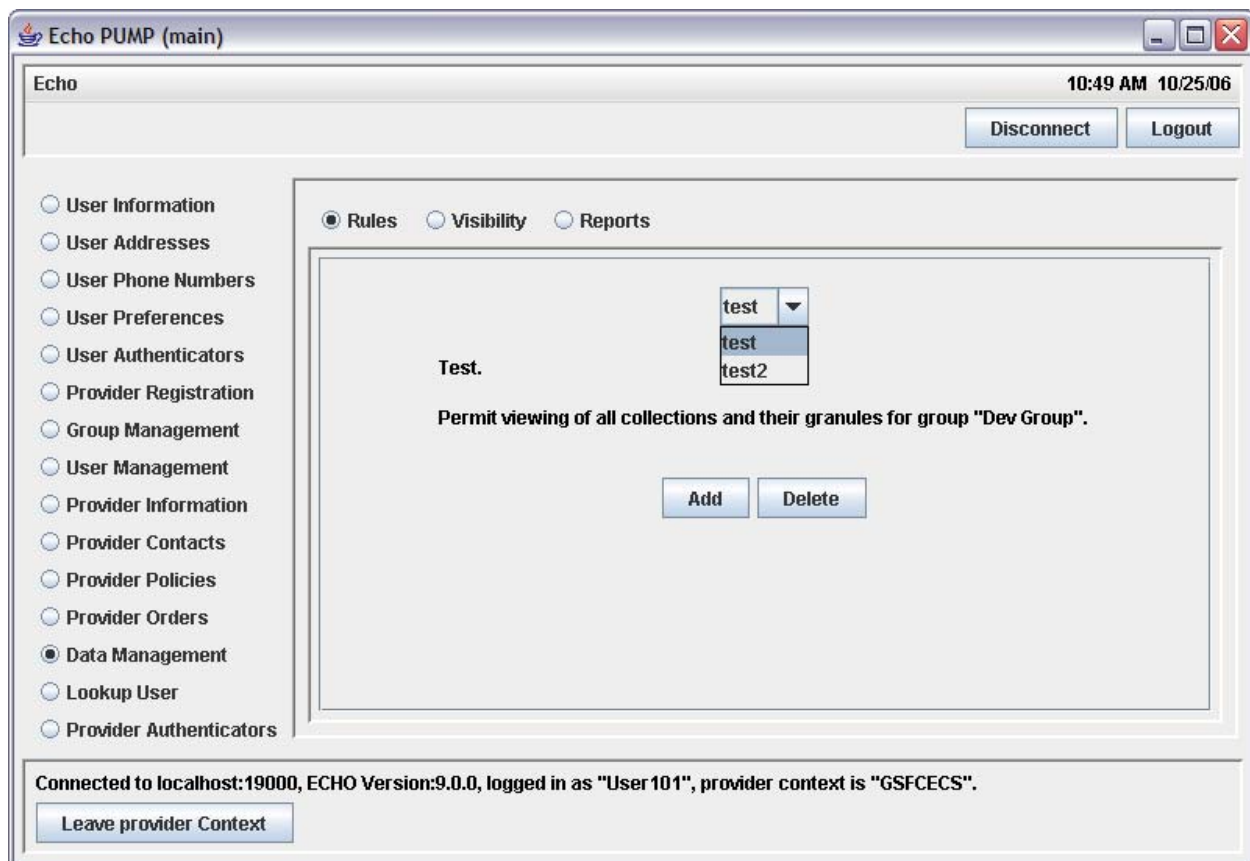
**Figure 66. Add Rule**

To add a rule:

1. Select the “Rules” button on the Data Management Selection screen (Figure 65).
2. Select the “Add” button. The Add Rule screen (Figure 66) will be displayed.
3. Fill in the input fields for “Rule Name” and “Description”.
4. Select the type of rule using the pull-down menu. The options are "permit" or "restrict".
5. Select the action using the pull-down menu. The options are "viewing" or "ordering".
6. Select the data holding. The options are "all collections and their granules", "all collection granules", "collection", or "granule". In case of “collection”, an input box will be displayed where multiple collections (Dataset IDs) can be entered separated by semicolons.
7. Select the group(s) for which this rule applies.
8. Select the comparator and the condition. You will have different selections for comparator and condition depending on the data holding selected.
  - a. “All collections and their granules” comparator options are “by time” or “restriction flag”. By time has a condition option of unconditionally. Restriction flag condition options are “equals”, “not equals”, “greater than”, “greater than or equal”, “less than”, or “less than or equal”.

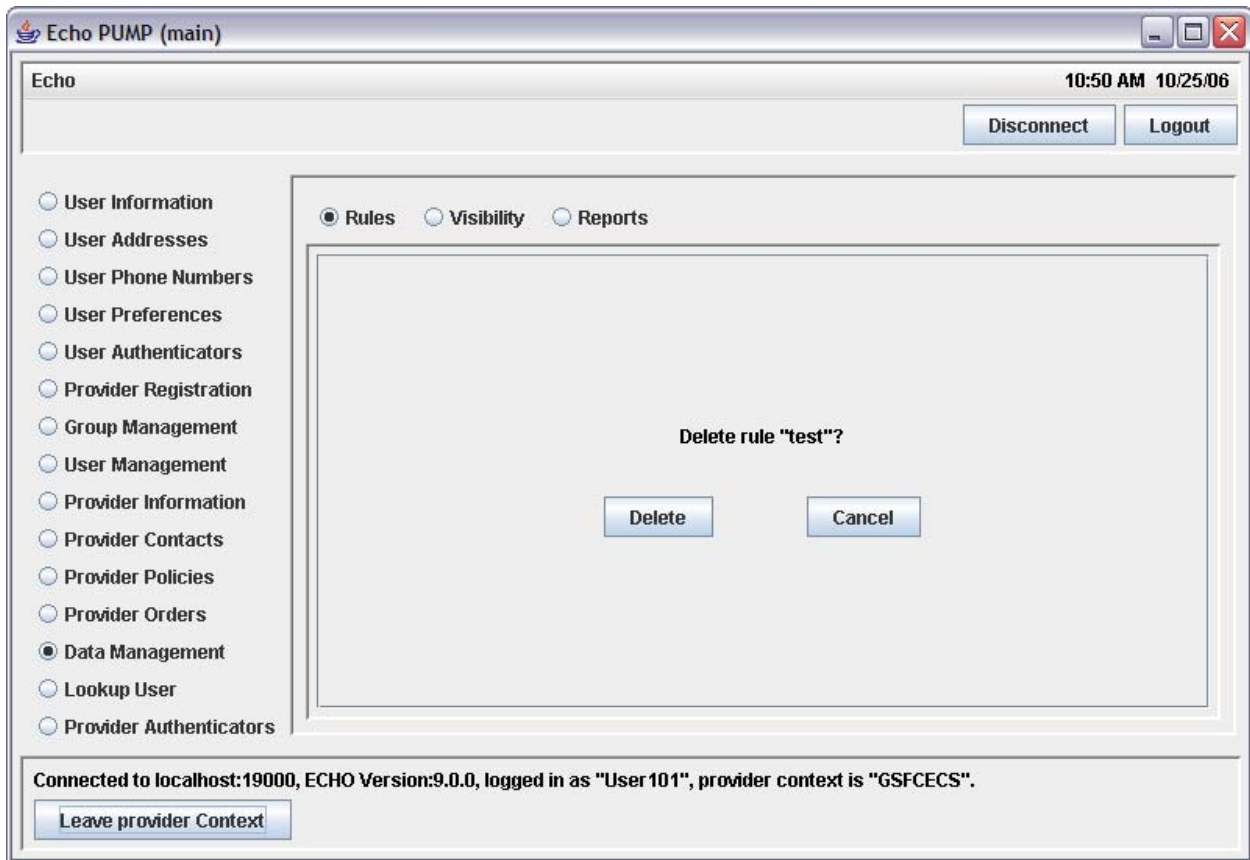
- b. “All collection granules” comparator options are “by time” or “restriction flag”. By time condition options are “that are greater than”, “that are less than”, “that are within”, or “that are outside”. Restriction flag condition options are “equals”, “not equals”, “greater than”, “greater than or equal”, “less than”, or “less than or equal”.
      - c. “Collection” comparator options are “by time” or “restriction flag”. By time condition options are “that are greater than”, “that are less than”, “that are within”, or “that are outside”. Restriction flag condition options are “equals”, “not equals”, “greater than”, “greater than or equal”, “less than”, or “less than or equal”.
      - d. “Granule” comparator options are “by time” or “restriction flag”. By time has a condition option of unconditionally. Restriction flag condition options are “equals”, “not equals”, “greater than”, “greater than or equal”, “less than”, or “less than or equal”.
9. Select the "Add" button. The Display Rules screen (Figure 67) will be displayed.
10. Once you add a rule, the system will automatically add the created condition to the conditions list.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 67. Display Rules**





**Figure 68. Delete Rule**

To delete a rule:

1. Select the "Rules" button on the Data Management Selection screen (Figure 65). The Display Rules screen (Figure 67) will be displayed.
2. Select the rule you want to delete using the pull-down menu.
3. Select the "Delete" button. The Delete Rule screen (Figure 68) prompting you to confirm the deletion will be displayed.
4. Select the "Delete" button. You will receive a message indicating successful deletion of the rule.

*Note: You can exit a transaction at any time by selecting the "Cancel" button from any of the working screens.*

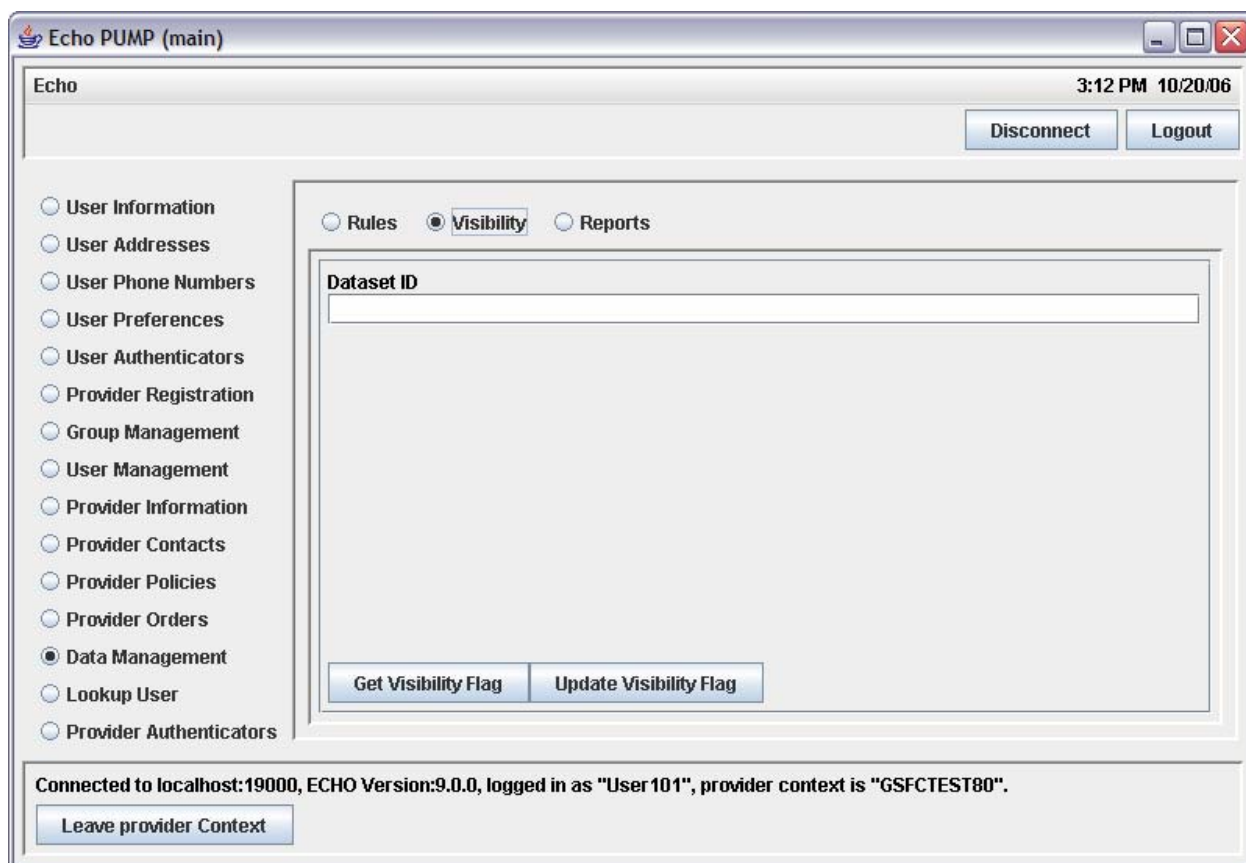
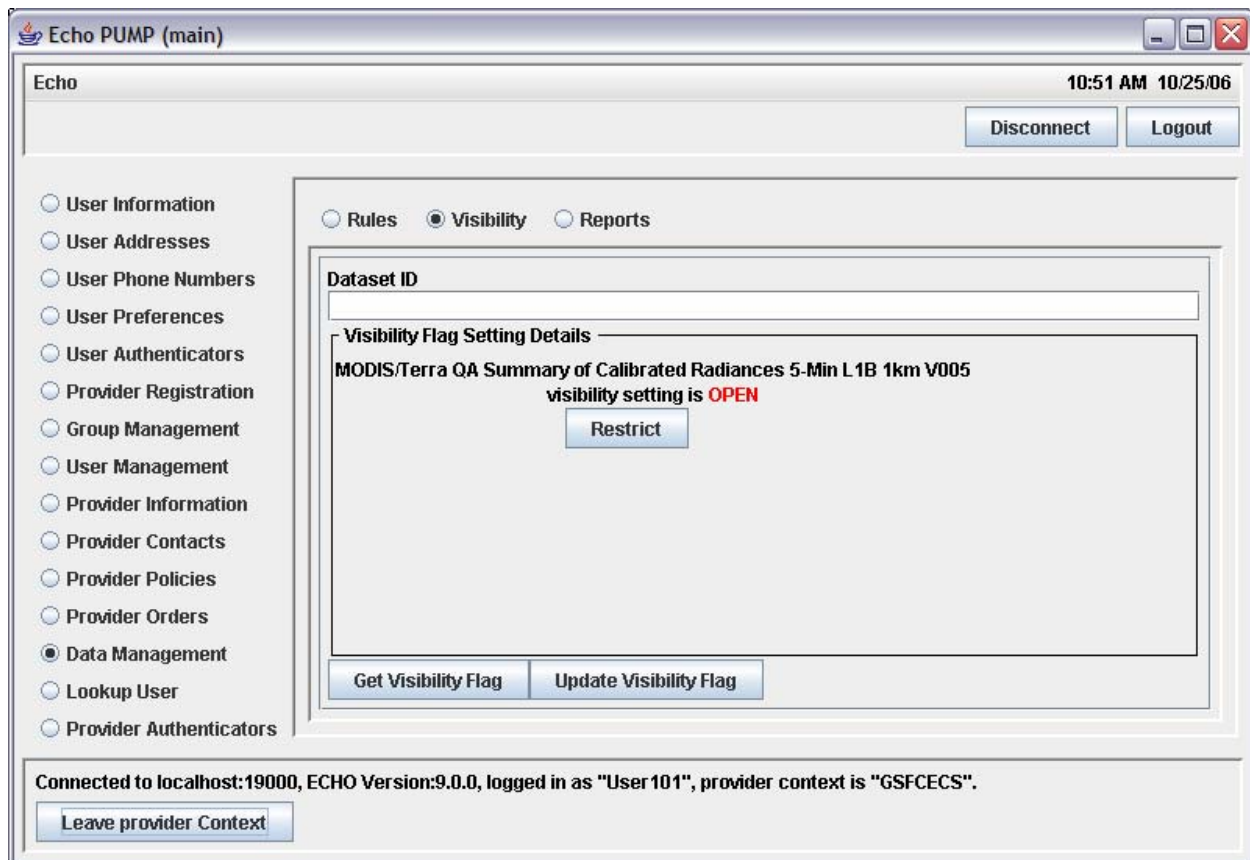


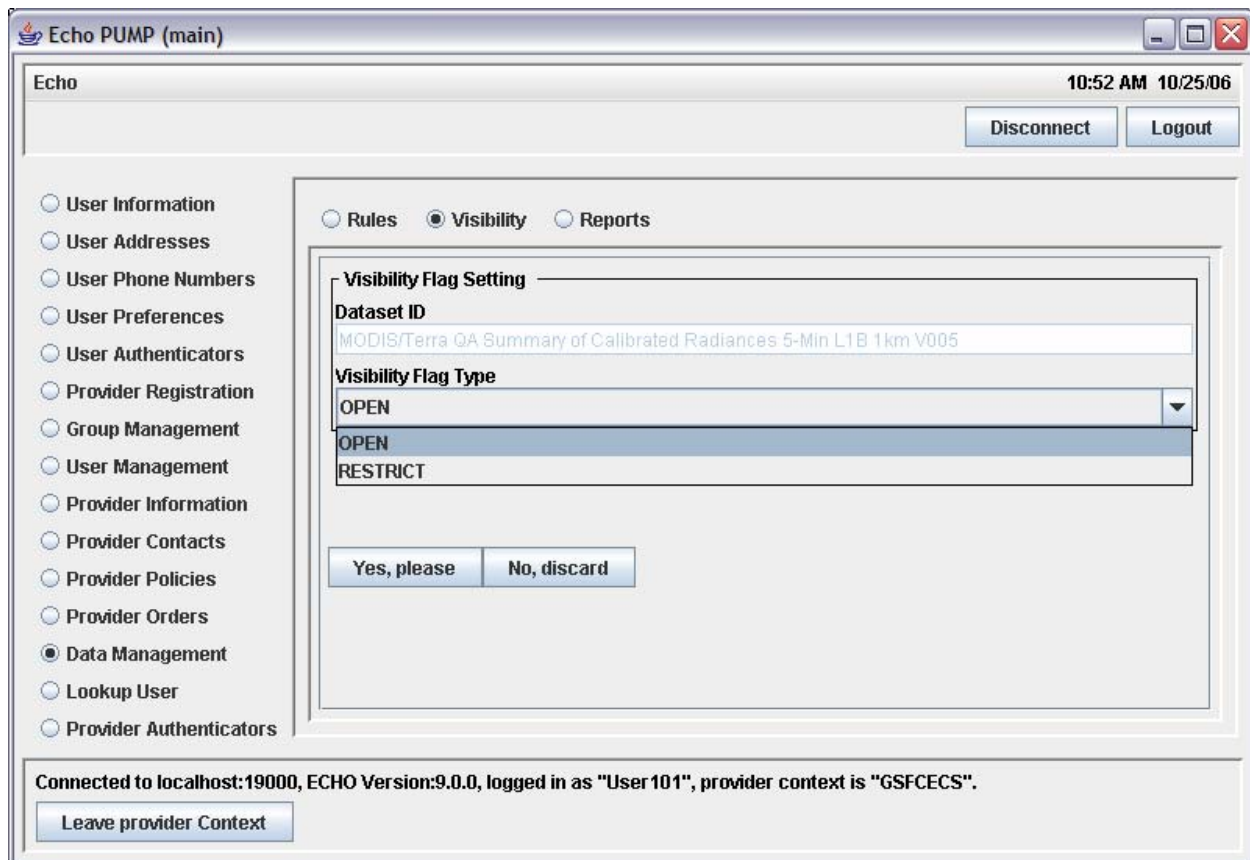
Figure 69. Visibility Flag Selection



**Figure 70. Display Get Visibility Flag**

To view and update visibility flag:

1. Select the “Visibility” button on the Data Management Selection screen (Figure 65). The Visibility Flag Selection screen (Figure 69) will be displayed.
2. Enter the Dataset ID.
3. Select the “Get Visibility Flag” button. The Display Get Visibility Flag screen (Figure 70) will be displayed.
4. Update the visibility flag by selecting the “Restrict” button if the visibility flag is set to Open or select the “Open” button if the visibility flag is set to Restrict.
5. The page will reload with the new visibility flag displayed.

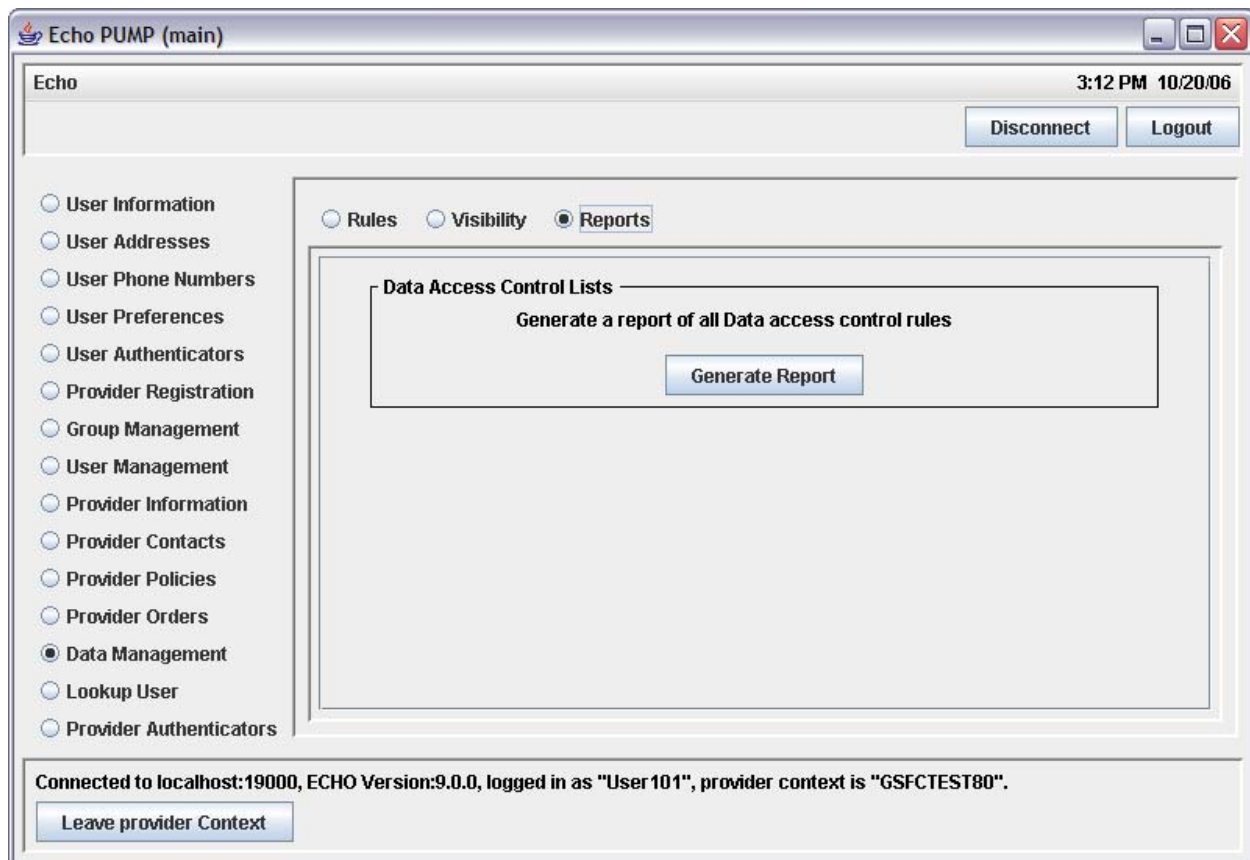


**Figure 71. Update Visibility Flag**

To update visibility:

1. Select the “Visibility” button on the Data Management Selection screen (Figure 65). The Visibility Flag Selection screen (Figure 69) will be displayed.
2. Enter the Dataset ID.
3. Select the “Update Visibility Flag” button. The Update Visibility Flag screen (Figure 71) will be displayed.
4. Select the appropriate visibility flag type from the pull-down menu.
5. Select the “Yes, please” button to update the visibility flag.

*Note: You can exit the transaction at any time by selecting the “No, discard” button.*



**Figure 72      Generate Report of all data access control rules**

To generate a report of all data access control rules:

1. Select the “Report” button on the Data Management Selection screen (Figure 65). The Data Access Control Lists screen (Figure 72      Generate Report of all data access control rules) will be displayed.
2. Select the “Generate Report” button. The data access control rules report screen (Figure 73      Report of all data access control rules screen) will be displayed.
3. To filter (view a subset) rules by datasets, select one of the option and Select “Filter By”, only rules applicable to the selected dataset will be display. Select “No Filter” and then “Filter By” to list all rules.
4. Use “Print” button to send this report to a printer attached to the user’s desktop or click on the “Save As” button to save the file local storage.
5. Click on “Back” to go to the previous Data Access Control Lists screen (Figure 72      Generate   Report of all data access control rules).

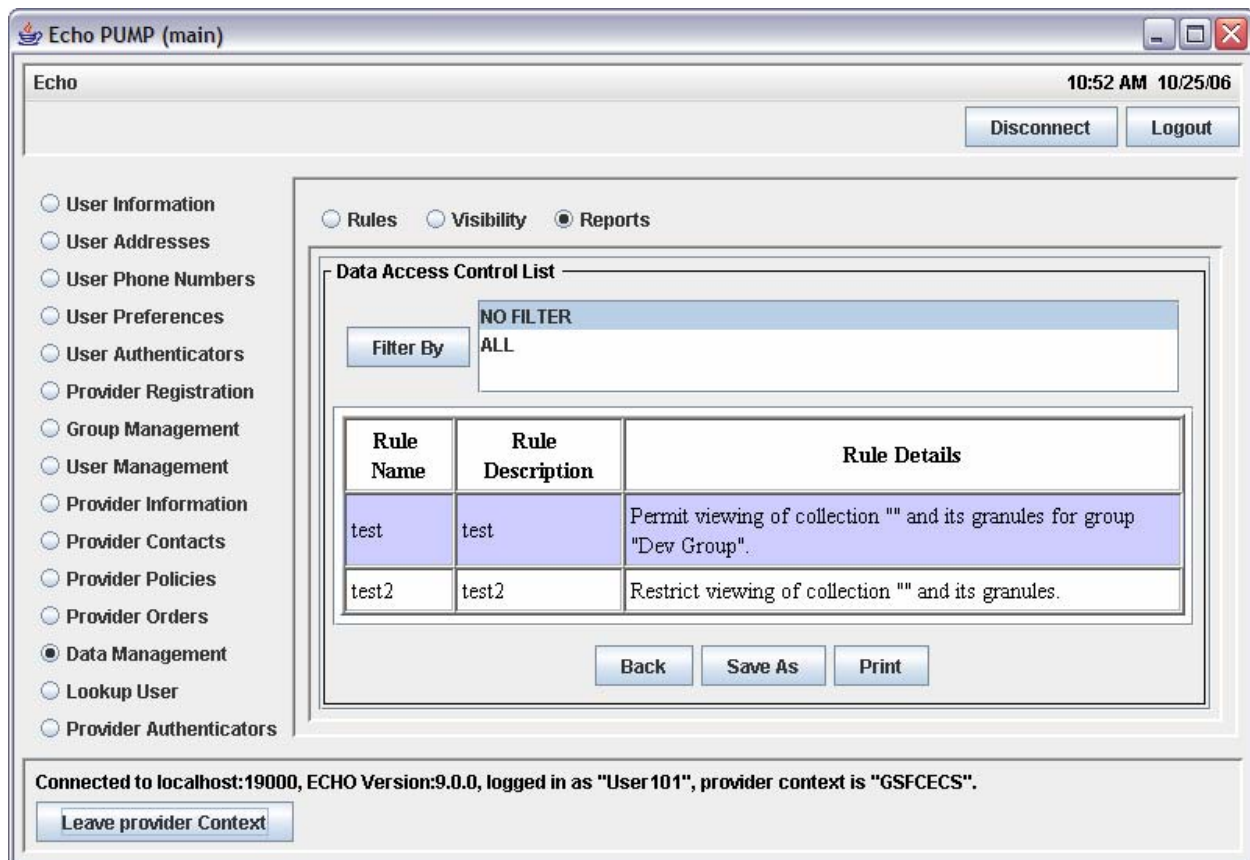


Figure 73 Report of all data access control rules screen

## 7 LOOKUP USER

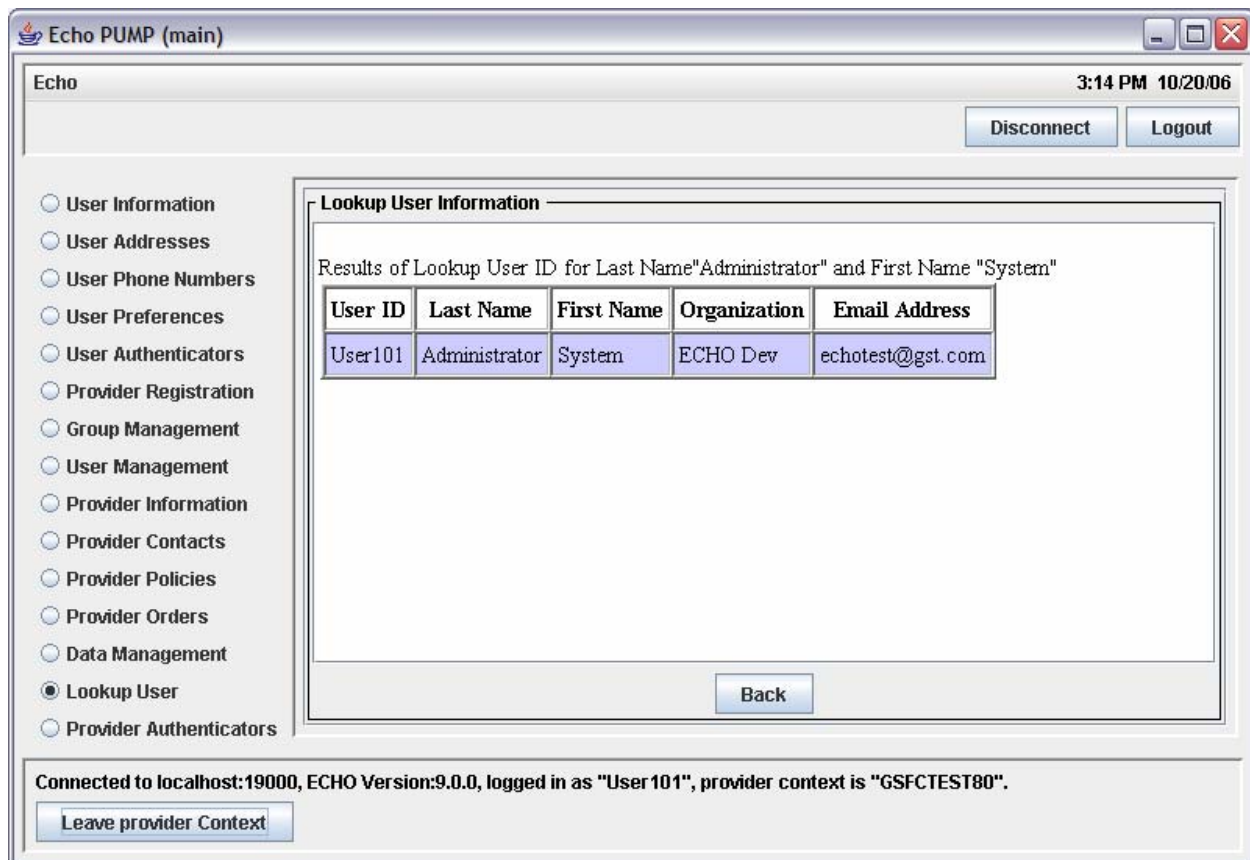
Providers use the Lookup User to look up ECHO login information and user's name and organization information.

To Lookup User ID:

1. Select the "Lookup User" button on the navigator panel from the Display Provider Context screen (Figure 45). The Lookup User screen (Figure 74. ) will be displayed.
2. Enter the form as follows:
  - a) Last Name. (Required)
  - b) First Name. (Required)
  - c) Organization (Optional)
3. Select the "Lookup User ID" button to retrieve information. Lookup User Information screen (Figure 76  
Lookup User Information screen) will be displayed. Select "Back" to go to the Lookup User  
screen (Figure 74. Lookup ).

The screenshot shows the 'Echo PUMP (main)' application window. The title bar includes standard window controls. The main content area is divided into three sections. On the left is a vertical sidebar with a list of menu items, each preceded by a radio button. The 'Lookup User' item is currently selected. The central area contains two main sections. The top section, titled 'Lookup User Id', contains three text input fields labeled 'Last Name', 'First Name', and 'Organization', followed by a 'Lookup User ID' button. The bottom section, titled 'Lookup User', contains a 'Lookup User Info' button and a text input field labeled 'for User ID'. At the bottom of the window is a status bar with the text 'Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101", provider context is "GSFCTEST80".' and a 'Leave provider Context' button. The top right corner of the main area shows the time '3:13 PM 10/20/06' and two buttons: 'Disconnect' and 'Logout'.

Figure 74. Lookup User screen

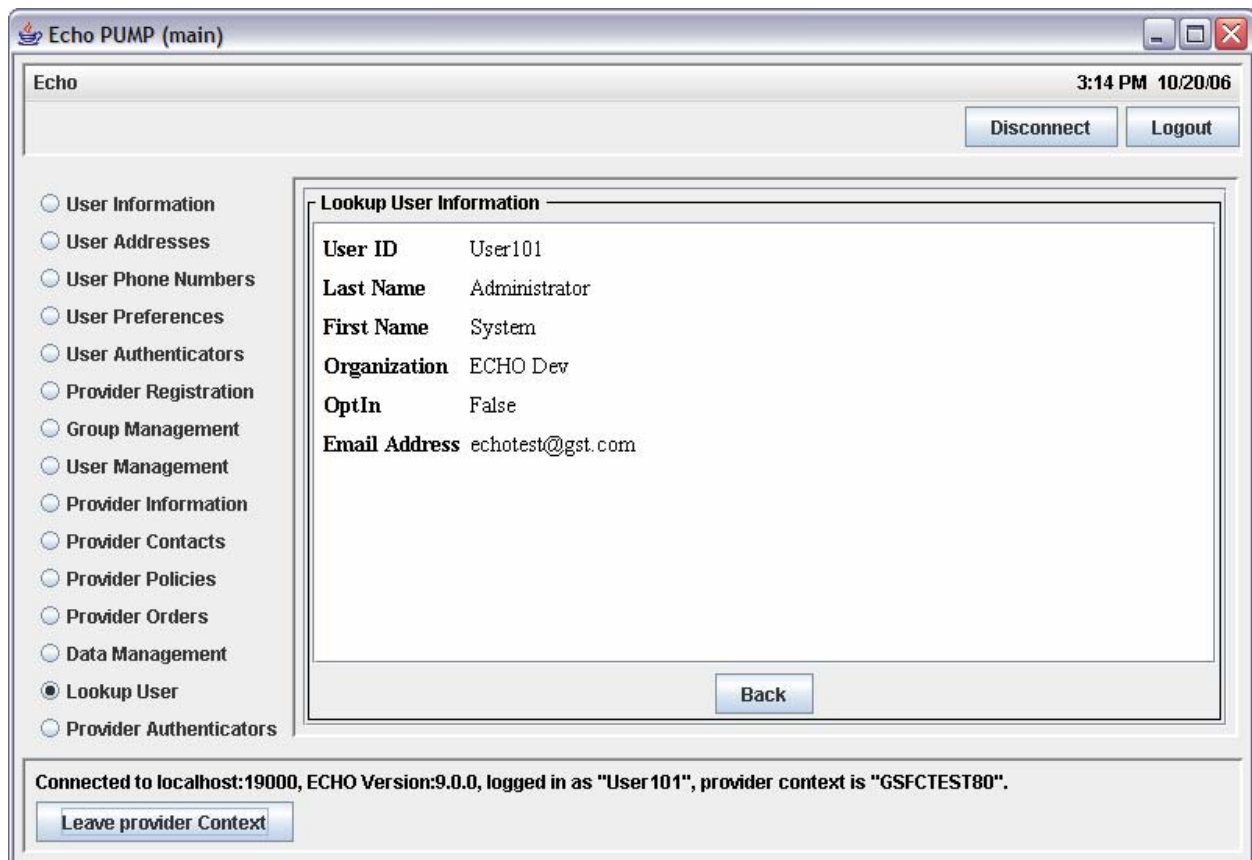


**Figure 75      Lookup User Information screen**

To Lookup User ID:

1. Select the "Lookup User" button on the navigator panel from the Display Provider Context screen (Figure 45). The Lookup User screen (Figure 74. ) will be displayed.
2. Enter the form as follows:
  - a) User ID (ECHO username). (Required)
3. Select the "Lookup User Info" button to retrieve information. Lookup User information screen (Figure 76  
Lookup User Information screen) will be displayed. Select "Back" to go to the Lookup User screen (Figure 74.      Lookup ).

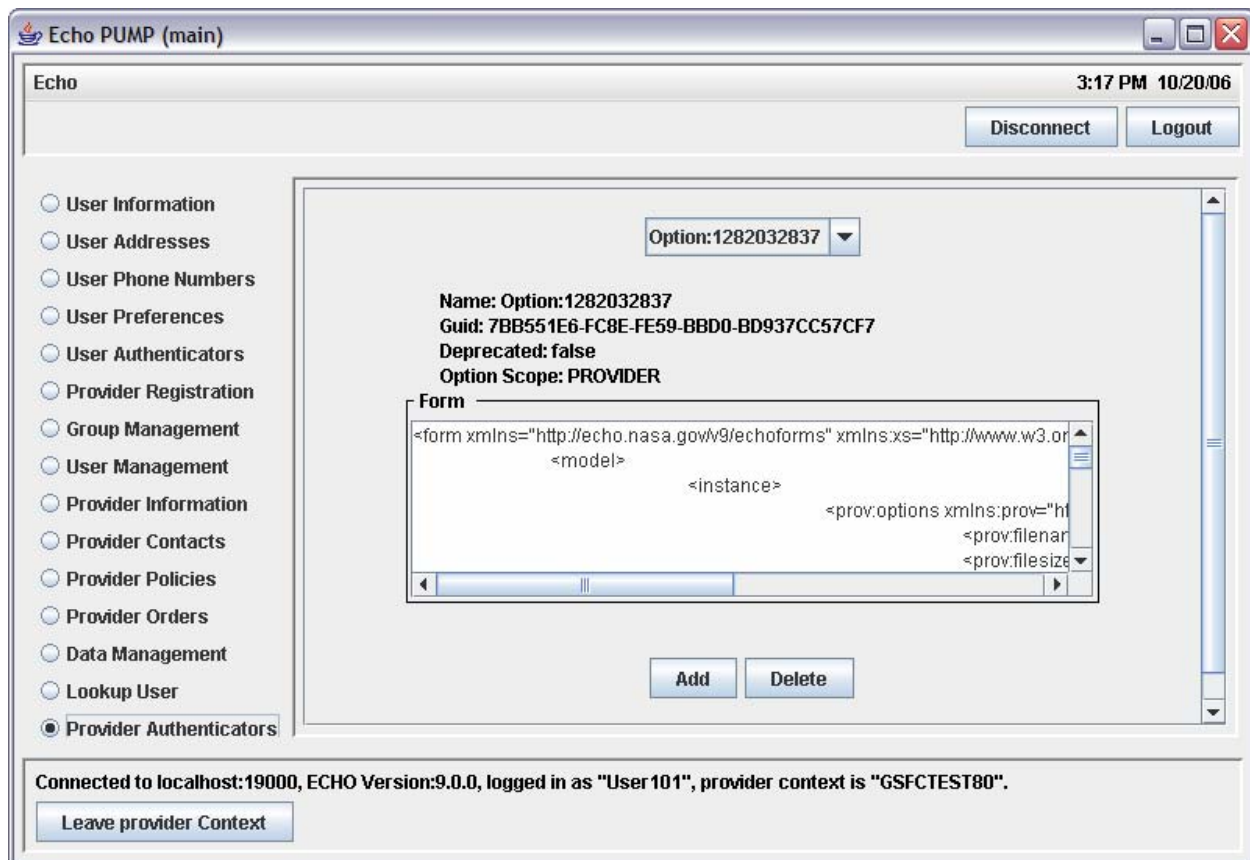




**Figure 76**      **Lookup User Information screen**

## 7.1 Provider Authenticators

This version supports multiple definitions as well as multiple selections of authenticator.



**Figure 77 Provider Authenticator Screen**

To view Provider authenticator information:

- Select the “Provider Authenticators” button on the navigator panel from the Display User Information screen (Figure 8). The Display Provider Authenticators screen (Figure 77) will be displayed.

The screenshot shows the 'Echo PUMP (main)' application window. The title bar includes the application name and standard window controls. The main area is divided into a left sidebar with a list of menu items and a central form area. The sidebar items are: User Information, User Addresses, User Phone Numbers, User Preferences, User Authenticators, Provider Registration, Group Management, User Management, Provider Information, Provider Contacts, Provider Policies, Provider Orders, Data Management, Lookup User, and Provider Authenticators (which is selected). The central form area is titled 'OptionDefinition GUID' and contains fields for 'Name', 'Option Scope' (a dropdown menu currently showing 'PROVIDER'), and a 'Form Content in XML' text area. There are 'Add' and 'Cancel' buttons at the bottom of the form. At the top right of the main area, there are 'Disconnect' and 'Logout' buttons. At the bottom of the window, a status bar displays connection information: 'Connected to localhost:19000, ECHO Version:9.0.0, logged in as "User101", provider context is "GSFCTEST80"'. A 'Leave provider Context' button is located in the bottom left corner of the status bar area.

**Figure 78. Display User Authenticators**

To add a new authenticator:

1. Fill in the required fields; Authenticator definitions is set using XML forms, please see XML forms guide for more information.
2. Select the “Add” button. The Add New Authenticator screen (Figure 78) will be displayed.
3. You can clear existing values for that authenticator by selecting the “Clear” button.
4. Fill in the fields and select the “Add” button. The screen will display the new information.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*



**Figure 79 Provider Authenticator Delete Screen**

To delete an authenticator:

1. Select the authenticator from the drop down list.
2. Select the “Delete” button. The Delete Authenticator screen (Figure 79) will be displayed.
3. You can clear existing values for that authenticator by selecting the “Clear” button.
4. Click on the “Delete” confirmation screen to complete the authenticator’s deletion.

*Note: You can exit a transaction at any time by selecting the “Cancel” button from any of the working screens.*

## ACRONYMS

ECHO .....	EOS Clearing House
EOS .....	Earth Observing System
GUI.....	Graphical User Interface
JRE .....	Java Runtime Environment
PUMP .....	Provider User Management Program
UDDI.....	Universal Description, Discovery and Integration
UI.....	User Interface
URL .....	Uniform Resource Locator
WSDL.....	Web Services Description Language